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PHOTO ERA

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OF PHOTOGRAPHY

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OF

PHOTOGRAPHY AND ALLIED ARTS

VOLUME X

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ON THE HILLSIDE.

By H. A. LATIMER.

Against the neighboring hill
The sheep stand snow-white, as if a snowdrift still
Defied the Dog Star. Through the open door
A drowsy smell of flowers—gray heliotrope
And white sweet clover, and shy mignonette,
Comes faintly in, and silent chorus lends
To the pervading symphony of peace.

—WHITTIER.

PHOTO ERA

The American Journal of Photography

VOLUME X JANUARY, 1903 NUMBER 1

The New-Year's Book

"Whatever hath been written shall remain
Nor be erased, nor written o'er again;
The unwritten only still belongs to thee;
Take heed and ponder well what that shall be."

—LONGFELLOW.

To the pervading symphony of peace.
—WHITTIER.

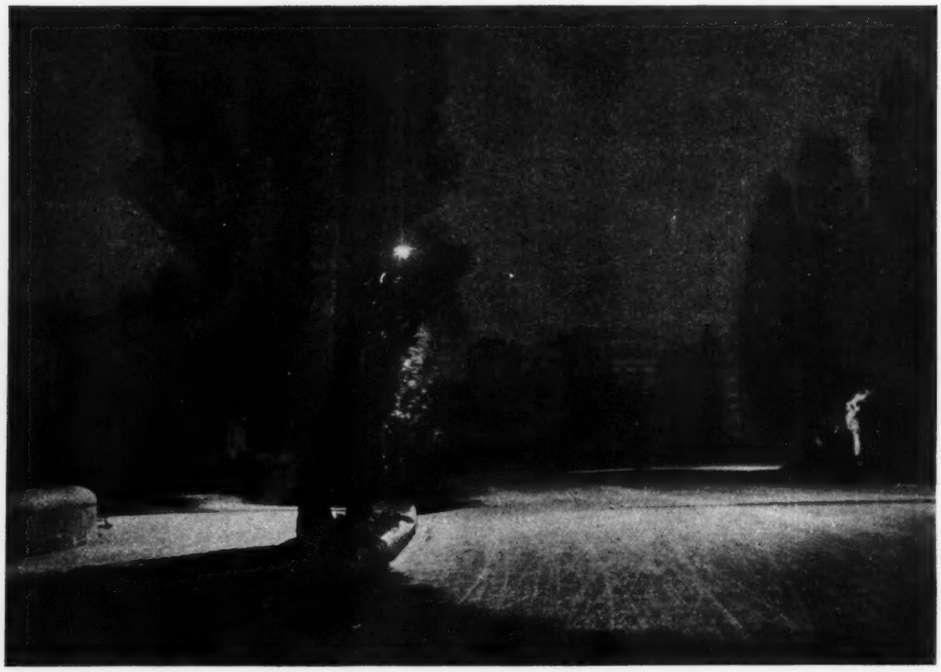
Our First Annual Photographic Contest

BY THOMAS HARRISON CUMMINGS

THE first issue of the PHOTO ERA appeared in May, 1898. During the four and a half years that have since elapsed it has vindicated its right to live by exerting a wholesome and salutary influence on the progress of pictorial photography in America. Though our aims, at times, have been misunderstood we have always stood for what we considered the sound and healthy progress of artistic photography. In our selection and choice of pictures for reproduction in the pages of the PHOTO ERA we have been influenced only by the broadest possible

MIDWINTER. By CORA STANWOOD COBB.

Time, 5 P. M. Double Rectilinear Lens. Stop 8.
One second exposure. Seed's 26x Plate.



THE FENS AT NIGHT. By W. SCHREMPF.

Taken in the evening with a Steinheil, Antiplanet Lens, at Stop 3, with four minutes' exposure on Cramer Crown Plate.

ENTRANCE TO PUBLIC GARDEN. By W SCHREMPF.

Seven minutes' exposure, Stop 3.

principles, recognizing no state lines nor sections. Besides artistic and technical excellence we have had but one fixed standard of selection, finally, and that is pictorial value. A picture might not be perfect from every standpoint, yet it should have pictorial value, at least, to secure our interest. In other words, the policy of the PHOTO ERA is to record the photographic art of our time as it really is, and not as we think it ought to be.

With this declaration of principles it is easier to understand the outcome of our First Annual Photographic Contest. The awards have been made

RETURN OF THE FISHERMEN. By J. EDW. SCHIEDT.
Time, 3 P. M., with Euryscope Lens. Stop F. 22. 1-10 second exposure.
Stanley Plate.
FIRST PRIZE, MARINE CLASS.

Furthermore, in applying these principles we have not sought to follow any fashion or to recognize especially any school in photography. A high English authority has recently declared that "fashion in photography" and to a certain extent "schools in photography" tend to fetter progress. And, later on, it adds, in art there is nothing so fatal as dogma. We believe this to be true, and we offer this truth in explanation to those of our readers who have been disposed to question the artistic policy of the PHOTO ERA in the past. We say, with the poet Browning:

> "The common problem, yours, mine, every one's,
> Is not to fancy what were fair in life
> Provided it could be; but, finding first
> What may be, then find how to make it fair
> Up to our means."

with these principles in view, and we await the verdict of our readers with confidence.

Out of nearly five hundred entries there is scarcely a poor picture in the whole lot. Indeed, the general average is of a very high order of merit, and the task of the Jury of Awards was by no means an easy one. It necessitated a thorough, critical, and exhaustive study of the comparative values of five hundred prints; all of them good, many of them equally good. To sift the wheat from the chaff where there was so much excellence was indeed a difficult task. We desire to congratulate the jury on their unselfish devotion, rare discrimination, and untiring patience shown in completing their work.

Awards have been made in the following subjects: Landscape, Genre, Marine, and Portraiture;

ON THE MEADOWS. By T. Edward Schiedt.

Time about 4 P. M. Weak light, one-tenth second exposure.
Stop F : 10. Orthonon Plate. Euryscope Lens.

and a first general prize for the best collection of pictures submitted.

The first prize award in the Landscape Class is entitled "On the Brow of the Hill," by C. L. Newland, and is an effective study of rolling land, with an arrangement of figures that is admirable. Unfortunately the black and white tones of the plate very inadequately reproduce the soft, warm sunset colors which are given by the yellow high lights and the dark brown luminous shadows of the original sepia print. On the whole the pose of the little group of figures shows a good artistic knowledge of arrangement, in which the setting is admirable. It is one of the pictures to be remembered.

Honorable mention in this class has gone to a picture entitled "The Willows," by F. A. Carrier, a study in tree shapes and running water, on page 8 of this issue, which would really be of service to a painter.

It has a charming sunlit quality, and calls for much praise. If any criticism could be made of this print it might be that the details of the trees against the sky and the spotty foreground divide attention with the river and beautiful distance beneath the branches, which is presumably the chief motif of the picture.

The first prize in the Marine Class has been awarded to the picture printed on page 3, entitled "The Return of the Fishermen," by J. Edward Schiedt. The composition is strong and simple, and the sea and sky and atmosphere of the picture are very well rendered. There are times, in purely decorative work, when repetition of form is of great value — the repetition of boats along the beach here emphasizes the motif of this picture, without resulting in monotony. And it is just here that the genius of the artist has saved his picture from what might have been a serious defect. There are miles of low beach and surf stretching before the eye, giving a fine effect of distance. While the planes of this picture are well kept, every part is good in tone, and the whole picture is filled with interest and atmosphere.

A second picture which divides the interest, though not strictly in the Marine Class, is "On the Meadows," by the same artist, and is reproduced on page 4 of this issue. It is a capital

ON THE BROW OF THE HILL. By C. L. Newland.
Time, 2 P. M., with Cooke Lens. Cramer Iso Plate. Stop. F.-8.
1-2 second exposure.
First Prize Landscape Class

CAVATINA. By W. A. BOGER.

Taken 11 A. M., with Goerz Lens.
Stop F.-8. 4 seconds' exposure. Cramer Plate.
FIRST PRIZE GENRE CLASS.

study of meadowland and sunlight effects, and is proof positive, if any were needed, of the versatility and strength of the artist.

The first award in portraiture is made to the picture of a child entitled "Judson," by Miss Nellie C. Knappen. It is an ingenious attempt to catch a child in a natural pose, and the low tone of the portrait suits well the pose and expression of the subject. Miss Knappen's name is well known in the American photographic world, and her work loses nothing of freshness or charm in this her latest attempt at portraiture. Two other portraits of children, entitled "Study of a Child" and "A Little French Peasant," by Mrs. W. W. Pearce, are published elsewhere in this issue, and divide the honors in this class of photography with Miss Knappen.

The first award for the best genre picture will go to "Cavatina," reproduced herewith on this page, an exquisite picture of a girl violinist, by W. A. Boger. It is a successful attempt to pose a graceful model. It is dainty and striking, and possesses a natural charm that is very winning. The lighting is soft, beautifully subdued, and there is just sufficient indefiniteness of outline in body and instrument to suggest motion. The pose of the head, the hands, the drapery, the massing of lights and shades all suggest evidences of thought and artistic feeling in treatment.

The special award in the Cloud Class has been made to S. I. Carpenter, whose excellent work in this branch of photography is already too well known to PHOTO ERA readers to call for any special comment here.

No awards were made in the Historical Records and Architecture Classes, as the subjects submitted would hardly warrant it, in the opinion of the Jury of Awards.

On the whole, the contest for 1902 has been a great success. While we regret the absence of some well-known names from the list of entries, we feel that their absence has been made up by the newer workers, who are numerous and who possess enough real merit and interest in their art to promise well for the future.

In closing, we again affirm that the advancement of photography as an art — not the glorification of certain photographers — is the sole aim and purpose of this annual photographic contest in our pages. We seek only to encourage the expression of individual thought in photographic work. We think a picture is good or bad, artistic or inartistic, in proportion as it conveys the artist's thought.

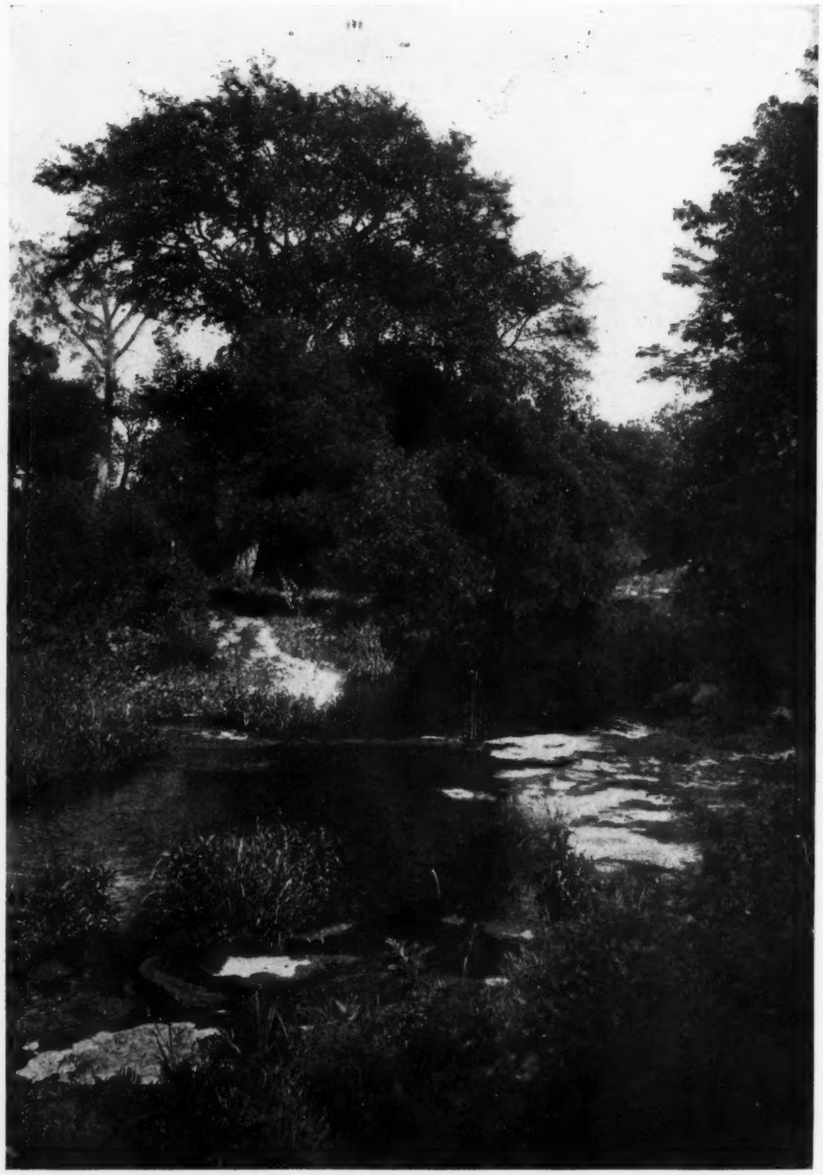
And it is only in choice of subject and arrangement of its light and shade and line that a photograph is purely an expression of the individual mind, and in the strict sense "artistic"; so, while the æsthetic appreciation shown by the choicest selection and the most pleasing arrangement in no way implies the capacity for the actual doing of the thing chosen, it shows a qualification of mind that is absolutely essential to such doing.

If we eliminate all that is fortuitous and all that is inevitable, and all that is the result of judgment, knowledge, and taste in timing, developing, and printing, and consider the pictures composing our first annual photographic contest only so far as the contributors are responsible for them, we shall find much the same kind of mind in them that we do in creative work of a high order. Nor can the fine art sense, the quick, keen appreciation of the pictorial possibilities of the subject, shown by some of the contributors be overpraised. It represents the high-water mark of cultivated work in American photography.

And we submit that the results of this first PHOTO ERA contest furnish abundant food for thought and honest criticism and reflection.

Due notice will be given in our February issue of the grand prize award for the best collection of pictures, and also of the public exhibition of prints which will be given later, at the rooms of the PHOTO ERA, 170 Summer St., Boston.

"JUDSON." By NELLIE M. C. KNAPPEN.
Time, 11 A. M., with window lighting and Zeiss Lens. Cramer Plate.
Exposure, 1 second.
FIRST PRIZE PORTRAITURE CLASS



Honorable Mention

THE WILLOWS. By F. A. Carrier.

Time, 3 P. M. Bright light, 1-2 second exposure. Bausch & Lomb Lens. Stop 64. Stanley Plate.

A New Graded-Light Screen

A NEW device for outdoor photography, and a very simple one, consists of a photographic light screen composed of two compensating prisms, one colored and the other uncolored, so arranged as to differentially qualify the light falling upon the sensitive plate or film. It is the invention of Dr. E. F. Beckwith, of Ionia, Mich.

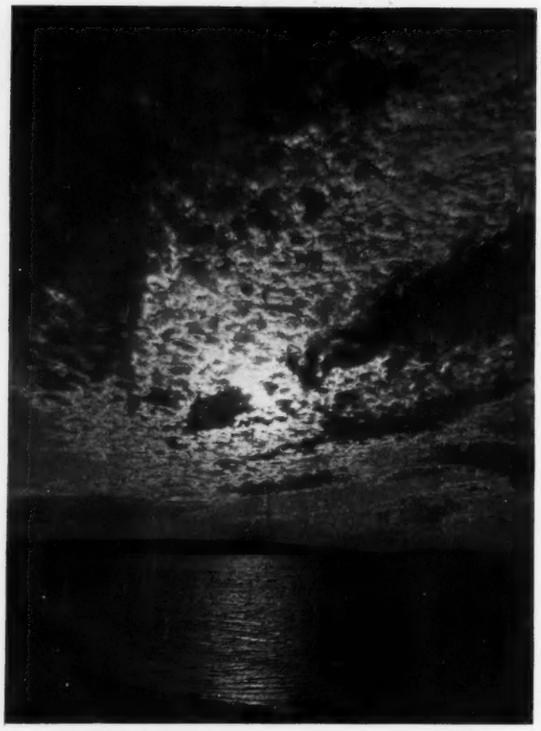
The object of the inventor was to modify the intense light of the sky so that it would balance with the softer rays reflected from the landscape. The sky would, under the old way, be overtimed, tending to make an undesirable contrast. On the other hand, by the use of this simple device, the defect is done away with by a graded light. The top of the screen, being thick, softens the rays from high elevations so gradually that they are of the same value as the lower, darker rays. In this way the light under any atmospheric condition is made to fall upon the sensitive plate with what is said to be perfect uniformity. It matters not what the conditions, the inventor gets a splendid and perfect picture, either with a cloudy or clear sky.

"THE LITTLE ÆOLUS." By CORA STANWOOD COBB.
Time, noon. Double Rectilinear Lens. Stop 4. 1-25 second exposure. Seed's 26x plate.

Cloud Photography

BY H. MCBEAN JOHNSTONE

IN endeavoring to rid ourselves of baldheaded skies in negative-making it is impossible to adopt any one of three different methods. First, we may have real clouds, by which is meant those that were actually in the heavens when the exposure was made ; then, we may have real clouds printed in from another negative that had been made for its sky effect alone, or we may have artificial clouds faked on the back of the negative. Any one of the three schemes is productive of results that are superior to plain, white paper, though, depending upon the result aimed at, each way is apt to prove the best. For instance, in purely pictorial work there is small reason to doubt that the best results are to be had from printing in. To photograph a landscape alone, paying proper attention to light and shade, composition and arrangement of mass, is by no means a simple task. To do all this at its very best, and at the same time to watch for the most pleasing disposition of cloud lines, becomes almost an impossibility. In such a case, therefore, it is best to pay no attention at all to the upper part of the picture, trusting to be able to supply whatever is needed from some other negative at a later time, But then again, printing-in means work and delicate manipulations. Difficult even with Solio, Aristo, and other printing-out papers, how much more so must it become when one is in the habit of employing Dekko or Velox, or is making lantern-

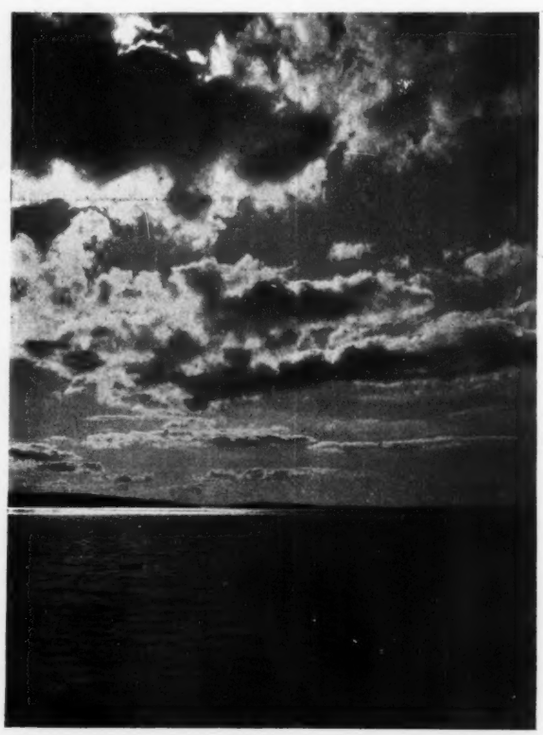


A MACKEREL SKY. By S. I. Carpenter.

slides. Undoubtedly, for work of this type, where one has to judge exposures, the method where both clouds and landscape are included on one plate, has much to recommend it. Of those negatives where the clouds are supplied by faking on the back with lampblack or opaque only passing comment need be made. They have never been capable of commanding consideration in connection with the term pictorial, and never will be. The method's only claim for notice is that, in such prints as are intended for the engraver, it is better than nothing at all, inasmuch as it serves to break the monotony.

Just because so much has been said and written about cloud photography amateurs have gotten into the way of regarding it as something very difficult, and requiring all sorts of special ray-screens and plates. On the contrary, it is quite possible to obtain both clouds and landscape on one plate at one exposure, and on an ordinary plate at that. This can be done by what is referred to as a modified exposure, a method which consists in cutting off some of the light from the sky during the exposure. There are a number of simple ways of doing it. Perhaps one of the best is that which calls into play a shutter that is fastened to the lens tube by a hinge at the top, and that swings up and then down again to make the exposure. As will be easily seen, this allows more time on the landscape than on the sky, greatly to the benefit of both. Needless to say, this method is not suited to quick exposure work, and will call for a plate a trifle slower, perhaps, than the one you are in the habit of using. But a slow plate is no disadvantage. The thicker emulsion with which it is coated will allow of your securing more half-tone and gradation than a thinner and faster one would permit. Small obstructions, such as a tree or two on the sky line, will not interfere with this method of exposure, but, where there are mountains or a forest in front of the lens, the scheme will have to be abandoned or the middle of the plate will be underexposed.

In cloud photography, before one even considers whether or not an orthochromatic plate is a necessity, must come the question of halation and its cure. This is true whether only clouds alone are being photographed or both clouds and landscape on one plate, though with the latter it is more apparent. Suppose, as an example, you take a photograph of a sunset with a building in the foreground and cutting off part of the sky. Look at the halo of light surrounding it. The illumination appears to be too strong and to have spread out over the building. The explanation that it has been reflected back at an angle from the back of the plate is almost too old to refer to. But consider a moment something that you have probably overlooked because there was no building to attract your attention to it. If the light overspreads in one instance, what is there to prevent it doing the



"Swift scuds the flying cloud." By S. I. Carpenter.

"Praised be the art that can stay yon cloud
And fix it in such glorious shape." — *Wordsworth.*

By S. I. Carpenter.

First Prize, Cloud Class.

"Life all past
Is like the sky when the sun sets in it,
Clearest when farthest off." — *Rossetti.*

By S. I. Carpenter.

same thing every time? And, in a bright sky, who is ever going to notice it? Yet, the fact remains, it is there all the same, and just as much as it obscured the brilliancy of that building's edge, so does it detract from the clearness of outline of the cloud forms. Moreover, inasmuch as the edges of the cloud are usually the thinnest and most delicate parts, one of the chief beauties of the subject is lost. To avoid the difficulty a most excellent idea is to use the double-coated, non-halation plates made by some manufacturers. Though these are a trifle slower in their action, owing to the thickness of the film to be penetrated by the light, when one is using the shutter referred to herein, but little inconvenience results. Should one not care to go to the expense of buying such plates, however, ordinary plates coated with the usual lampblack backing are quite satisfactory. There are also a number of prepared backings on the market that are very simple and clean to handle.

The question of orthochromatic plates is more or less debated. Some workers contend that the most true to life results are to be had on ordinary plates, whilst others claim that a ray-screen and all the rest of that paraphernalia is an absolute necessity. The fact is, ordinary plates, under certain conditions, will give fairly realistic results. On a day, for instance, when we have very pronounced clouds standing out against a colorless ground of plain gray, there is no real reason why the ordinary plate ought not to supply all needs. Take, however, a day when the heavens are overcast with light, fleecy clouds on a blue field, and one will require both orthochromatic plate and color screen to get anything like truth in values. With an ordinary plate all would appear white and plain, owing to the fact that blue leaves are no impression on the sensitive film. But, even with all the proper equipment, it is no easy matter to render blue properly. A very common error that the tyro in cloud photography is going to fall into is the using of too dark a screen. The result will be that the picture will resemble that imitation, impressionistic thing that came out in the July number of the Photo Era, and the clouds will bear a strong resemblance to tufts of white cotton-wool pasted to a sheet of carbon-black cardboard. This is caused by the combination of the dark orange screen and the blue sky; the heavens take on a dark green tinge and do not photograph at all.

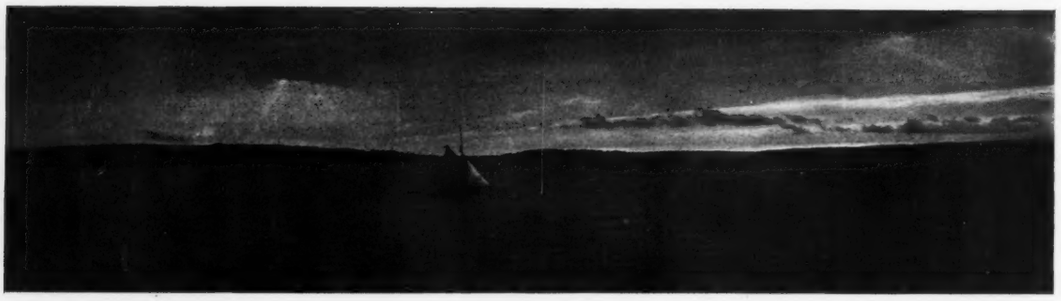
The difficulty is easily obviated by using a Bausch and Lomb ray filter and diluting the bichromate solution. Thus, it will be perceived that a very strongly defined cloud on a blue sky is going to necessitate a weak ray-screen and *vice versa*. But the only way to judge when a screen is too dark is to note the occasions on which it leaves the sky underexposed, and at the same time fully exposes the dark, heavy foreground. Color sensitive plates, particularly Cramer's, may be used alone and yield very satisfactory results. Inasmuch as they are partially corrected for blue in their making, they serve to show the contrast between those portions of the picture and such as are white or at least lighter. It goes without saying, of course, that a screen is unnecessary with a yellow sunset, just as at the same time it is understood that where the sky is red it is an essential.

While referring to sunset pictures, it may not be amiss to just mention and call attention to the falsity of the so-called moonlights made in this way. These pictures, so frequently made across a sheet of water, are the result of a short exposure with a small stop and a development long enough to secure white clouds and a dark ground for them. Their resemblance to a real moonlight is most remarkable owing to its absence, a fact which is easily proven by making a real moonlight and seeing it for yourself. In the genuine night picture, the foreground is the most brightly lighted position, the distance and heavens gradually fading away into nothingness. In the fake moonlight, the condition of affairs is just reversed and the distance is strong and clear with a dark, shadowy foreground. The real sunset picture requires a longer exposure, in order that the detail in the foreground may show when the sky has developed up to the correct density. If the amateur feels that he *must* have a "moonlight" he will find it better to secure it by full exposure and slight development rather than by short exposure and forced development. And with a long exposure, it is of course going to necessitate the use of backed orthochromatic plates to preserve the clouds.

Just a word or two on developing processes. To catch clouds on an ordinary plate, one must give a short exposure and carry on the process of development very slowly in a diluted solution. The more dilute the developer, the more often is it possible to save an overexposure. In such a case normal solution is out of the question. As the sky appears

"There are breadths of celestial horizons
Overhanging the commonest way."

By S. I. Carpenter.



"The cloudy pillar will guide by day,
The pillar of fire by night." — *Offord.*

By S. I. Carpenter.

and commences to stand out a little, more stock solution may be added for density but care must be exercised not to overdo it. Nor must one take any chances on overdeveloping in cloud work. In fact, if anything, rather err the other way. For the edification of those who have but a dim idea of the requisites of a good cloud negative, let it be stated that the principal characteristics ought to be an image devoid of fog, in which the range of halftone is perfect and the extreme high lights fairly intense. A developer rich in pyro or whatever agent is used and weak in accelerator is useful with the aim of bringing out the high lights first and securing in them good printing power by restrained but not too weak developer. With corrected or color sensitive plates, development may be carried on with solutions of full strength. The only place where extra care is needed is to stop before the negative gets too dense, particularly when both clouds and foreground are on one plate. If the exposure has been made for the foreground and not for the clouds, every part of the plate ought to be done about the same time. The exact moment to stop development is when the sky commences to be a trifle more dense than the foreground. Remember that the sky half of the negative gains density twice as fast as the other part. A good idea is to keep the solution well over the foreground with occasional washes over the other part to prevent the formation of a definite line.

In the making of cloud negatives for the purpose of printing in with our landscape negatives, it must be borne in mind that clouds are subject to the same rules as terrestrial objects. No one would think of photographing them at the zenith and introducing them at the horizon, but, even so, proper care is not always displayed in placing them at the proper distance above the horizon line. In the first place the cloud ought to be taken with a lens of the same form as is used on the landscape, and the direction, strength, and quality of the lighting should be the same in both. In all cases either include the horizon line or mark the negative in some way, that you may not commit the foolish error of printing it upside down.

But to go on and deal with this subject any farther would make the yarn well-nigh endless. Perhaps the few remarks that have been made here will not do more than to point out the way, but once one starts on that way he very quickly learns much for himself that somehow never finds its way into print and that is, after all, the very essence of the matter. Suffice it to say, in conclusion, that the amateur who has never tried cloud photography has before him a new field full of unexplored delights and he would do well to lose no time in jumping in and doing a little experimenting.

ORIGINALITY

BY G. L. SMITH

Whatever pictures you produce, observe originality;
To all the arts pictorial this golden rule applies,
So, keep yourself untrammeled by absurd conventionality,
And do not strive to keep your prints the regulation size.
Let all your works bear witness of your individuality,
Remember no two temperaments are ever quite the same,
So, see that your productions bear the stamp of personality,
And never let the prints be overpowered by the frames.

—*Amateur Photographer.*

"Stay household pet
The while, I set
To catch thy charms, a sunbeam net.
Charms of the bud that, hour by hour,
Old time is changing to a flower."

Honorable Mention.

STUDY OF A CHILD
By Mrs. W. W. Pearce

Taken at twelve o'clock with Voigtlaender Lens working at largest stop. Exposure, two seconds. Cramer Crown plate.

Photography as Applied to Illustration and Printing

[Abstract of Cantor Lecture delivered at the Society of Arts, London]

BY J. D. GEDDES

THE LINE BLOCK PROCESS

THE first requisite for the production of a good result in the line process is a suitable original: the drawing should be made with perfectly black lines throughout; it is of no consequence how thin the lines are, but they must be black; it is important, too, that the scale of reduction should not be too great; the best proportion is for the drawings to be made about one third larger than the required block. The paper used for the drawing should be white and smooth in texture.

The negative for a line block is made preferably by the wet plate or collodion process, because of the facility with which these plates can be intensified and the clearness of the lines; the negatives for this process must be reversed, so that the resulting picture may be non-reversed, which result can be obtained in two ways, first, by photographing through a prism or mirror attached to the lens, or second, by stripping the film, carrying the image off the glass, and turning it over.

The reversed negative is next printed on the metal which is to form the block in the following manner: — A piece of polished and perfectly flat zinc is cut to the proper size, and freshly polished in water until it is free from all trace of grease; it is then sensitized by either flowing over it a solution of asphalt in benzol, or, as is more generally used because of its rapidity, a solution composed of egg albumen, water, and bichromate of ammonia; an even film of this solution is floated over the metal, and is dried by gentle heat; as soon as it is dry, it is sensitive to light, and is at once placed in a printing-frame over the negative; a few minutes' exposure to daylight, magnesium, or electric light, is sufficient to oxidize the albumen where the light has obtained access to it through the lines of the

negative; the plate is then covered all over with a thin coating of ink from a printer's roller charged with ink, to which a little turpentine is added, and is then dropped into a flat dish containing cold water; the inky surface of the plate is then gently rubbed with a pledget of cotton-wool, and the ink coating, together with the unused albumen, leave the plate together, except in the places where the light has acted through the negative and rendered it insoluble, the result being an image of the subject photographed on the metal, covered with a greasy, acid-resisting ink; in this state the plate is

A STUDY IN STILL LIFE. By Marion S. Gaines.

ready for the first stage of the etching process that is to etch or bite away with acid all the metal surrounding the lines, and render the pictures in high relief, so that it may be printed in a printing-press in the same way as type. The etching of such a plate is the simplest thing possible in the abstract, but a considerable amount of skill and experience is required to carry the etching to a successful issue.

The theory is that a metal like zinc is quickly dissolved or etched by nitric or hydrochloric acid, so long as there is no grease or varnish on the metal to interfere with the dissolving action of the acid; that is so, but in the case of the plate we have to deal with a very thin protective coating, and with lines which are so narrow that they might be represented as knife ridges. There is also an element to be reckoned with in the fact that the acid not only etching downwards, but sideways. It is, therefore, necessary to proceed with some caution, and the first etching is performed for a few seconds only in a very weak acid, just strong enough to taste acid; after this the lines are slightly reinked with a roller, and whilst the ink is wet, it is dusted with powdered asphalt or resin, and afterwards heated to melt the powder into the ink. The etching proper is then proceeded with, and occupies two to five hours, but it is by no means a straightforward operation. For a time, every few minutes the plate is taken out of the acid bath and further strengthened with ink and resin, and as the etching proceeds, the piled-up ink on the lines is heated and melted, so that it runs down the sides of the lines, to protect them from being undermined by the acid — when a sufficient depth is attained to make the lines high enough to ink sharp and clean in the printing-press, the whole of the etching ink is removed, and the tops only of

the lines carefully reinked. A finishing etching is then given to remove the shoulder and steps on the sides of the lines caused by the various inkings and melting. When finished, a properly etched plate should have each line firmly and cleanly cut, and be supported by a pyramidal-shaped base. The plate is now ready to be trimmed and mounted on wood type-high for the printing-press.

REPRODUCTIONS OF WASH DRAWINGS AND PHOTOGRAPHS.

Save as regards line blocks, until early in the eighties, it can be said that there was no process in existence by which paintings, wash drawings, or photographs could be "processed," to use a bad term, into the form of a surface-printing block for the press, and the introduction then of the half-tone block marked an epoch in the history of photographic illustration which has done more to revolutionize the making of pictures than almost all the other processes put together. The origin of the process cannot be definitely claimed by any particular investigator. Its development was the result of a kind of evolution of Bullock's process of 1866. Meisenbach, of Munich, patented a half-tone process in 1882. Mr. Ives, of Philadelphia, Mr. W. B. Woodbury, and others were experimenting and publishing results in rapid succession, until within a period of a very few years the process as it now exists was practically established. I recollect very clearly the "dark ages" of the half-tone process, when all kinds of expedients were adopted to break up the gradations of a photograph into lines or dots by the interposition of a texture of silk or fine linen; also the days of wire gauze, ruled lines on paper, and other similar processes. The Americans were first in the field with an improved device for breaking up the image into dots, which was so much superior to anything invented in Europe that almost every other method was dropped in its favor. I refer to the diamond ruled screens made by Mr. Max Levy, of Philadelphia. These screens or gratings are so essential to a description of the half-tone process that I will occupy a few minutes of your time in telling you how they are made. A sheet of the finest plate glass is selected and is coated with a varnish composed of asphalt and wax. The coated glass is placed on the bed of an automatic ruling-machine of extremely accurate construction, and capable of ruling lines of any degree of fineness up to 500 to the inch, the cutter of the machine is diamond pointed and gauged to cut lines of any desired width. The lines are ruled diagonally at 45 degrees across the glass, and the number to the inch varies according to the kind of work for which the screen is required; for newspaper printing the lines may be 50 or 60 to the inch; for commercial and catalogue printing, 100 to 130;

"It all comes back, the odor, grace, and hue,
Each sweet relation of its life repeated." — *Whitney*.

By Marion S. Gaines.

and for finer magazine or book illustration, 150 to 200 to the inch. When the ruling of the glass is completed, the ruled surface is subjected to the action of the hydrofluoric acid which eats into or etches the lines laid bare by the diamond, and forms a channel which is filled up with an opaque pigment. This enamel is baked in the lines in an oven, and then the surface is carefully polished until the lines are perfectly level, and the spaces represented by clear glass are bright and transparent. Two of these ruled glasses are required for each screen, laid together with the lines crossing at right angles, and cemented with Canada balsam. As may be imagined, the screen gratings are somewhat expensive, a piece measuring 12 x 10 inches, of 175 lines costs about £25; whilst large screens of 24 x 18 inches are charged at £100 or more. I am glad to state that we have now an English firm (Messrs. J. E. Johnson & Co.) who rule these screens excellently; indeed, there is little to choose between this work and the best American, which is a comforting thing to say in these days, when it is habit of the ever-present pessimist to decry everything that is English and all that the Britisher does.

To produce a half-tone block from a picture, wash drawing, or photograph, this ruled grating is placed in front of the sensitive plate, but not in contact with it. The screen distance from the sensitive plate is a point of importance in making the negative, and the skilful operator has to determine this distance according to his experience, and to the character of the subject which is to be photographed. If it is placed too close, the resulting negative will present what is known as a gridiron-appearance; if it is too far away, the dotting will be too close in the lights and too small in the shadows. You will understand how necessary it is to keep a nice balance in this matter in the case of a picture which is built up entirely of an infinity of dots, shadows being represented by grouping of dots, close together, with smallest of spaces between middle and light tones, by dots of different graduations in size, and the highest lights of pin point dots only. Everything is represented by dots, yet they are so accurately graded in relation to the light and shade of the orignal, that the eye does not detect them unless examined closely, and the half-tone picture appears as a practical facsimile of the original from which it was photographed.

The method of printing half-tone negatives on metal is similar in most respects to that described for line blocks on zinc, with this difference, that most half-tone blocks are now etched on copper, and the sensitizing solution generally employed for this metal is a compound of fish glue, albumen, chromic acid, water, and bichromate of ammonia. The copper is carefully cleaned with Tripoli powder, and washed, the sensitizing solution is then flowed over it twice or three times, and placed on a revolving table, where it is rapidly whirled, in order

LITTLE FRENCH PEASANT. By Mrs. W. W. Pearce.

Taken at 12 o'clock, with Voigtlaender Lens working at largest stop. Exposure made in two seconds. Cramer Crown Plate.

to spread the coating thinly and evenly over the whole surface; the coating is then dried by gentle heat in a yellow-lighted room, and the plate is now ready for exposure under the half-tone negative; three to ten minutes' exposure to an electric arc light completes the printing, when the plate is removed to a bath containing cold water, and soaked and washed under a spray of water until the unacted-upon compound is dissolved out, an operation occupying five or six minutes. The image on the metal at this stage is almost invisible. In order to enable an examination of the film to be made, the plate is dipped into a solution of methyl violet, which dye immediately stains the film, and brings the picture into view. If all has gone well, the surface is dried either by flowing it with methylated alcohol or gentle heat. The next operation has an important effect, namely, a hardening of the delicate glue picture into a substance resembling enamel, and this gives the method its name — the enameline process. The plate is simply heated to a high temperature over the flame of a large Bunsen burner; during the progress of this "burning in," or enameling, the image changes curiously; the blue picture gets pale, then grey, and eventually vanishes entirely; after a few seconds, as the plate gets hotter, the image appears as a faint brown,

and gradually increases in strength until it fully attains a rich chestnut brown tint, when the heat must be withdrawn, and the plate is cooled off. The plate has now a picture fixed upon it, which is formed of a strong, hard, impermeable coating of enamel, and which will bear any reasonable amount of etching without further protection. The etching bath is made up of neutral perchloride of iron dissolved in water, and of a strength which registers thirty-five degrees with a Beaume's hydrometer. The plate is first subjected to a general etching all over the plate, sufficient to give the block a printing depth; that is, to etch away the spaces round the dots forming the picture, so that the plate may then trimmed by engravers, beveled to admit of being riveted to the wood mounts, and are mounted type-high for use in the printing-press.

Many efforts have been made during all the years these mechanically grained blocks have been in use to find a means of producing a printing surface which would give a pleasing result with an irregular grain like that given by collotype or photogravure, but the results so far have been disappointing; perhaps some of this disappointment may be due to the fact that the eye has been trained by years of use to look for and expect the smooth, clean results given by the mechanically ruled screen, and that any other result, though it may in a meas-

"After the Maytime and after the Junetime
Rare with blossoms and perfumes sweet."

By Marion S. Gaines.

be inked over with a printer's roller charged with ink, and a first proof of the photo-etched picture pulled in the press. In most plates made by this process a further and local etching must be performed. The dulling of the general effect caused by the interposition of the necessary screen grating has to be removed as far as possible, and this is done by artists who are specially trained for the work. The parts of the picture which are in shadow and are usually correctly rendered by a properly-exposed negative, are covered over with varnish, and the next tones are etched again, then these tones are covered up, and the high lights are treated until the resulting picture, when proofed correctly represents the original. The plates are ure be more artistic, is not acceptable. I would like to mention, however, in closing this lecture, that Mr. Wheeler, of Bushey, has introduced a new screen for half-tone work. This promises much in the direction of the making of pictures which are free from mechanical effect, and are yet sufficiently delicate in texture to retain the finer details. His screens have no pigment in the graining; they are formed by a delicate etching of the surface, which leaves the plate very transparent, and the breaking up of the image to form the printing surface appears to be formed by causing the surface of the screen to act as if it were made up of an infinity of lenses. Some examples of this process will be shown to you, and will be found extremely interesting.

THE CAMERA FIEND.

(Written for the PHOTO ERA.)

LILIAN M. RATCLIFFE.

Camera! Camera! Camera!
For breakfast, dinner, and tea,
And I would that my tongue dare utter
The thoughts that arise in me,
But, alas! there's a law for too much jaw
While the camera fiend goes free.

Camera! Camera! Camera!
No matter how fine the days
The dark room's charms and the ruby glow
Are better than old Sol's rays;
And the cat and the dog and the chimney log
Have been "took" in a hundred ways.

Camera! Camera! Camera!
I never shall feel the same,
I've a simpering gaze which I cannot brook
And posing is all to blame;
While the conscious look of this shady nook
To me is a burning shame.

Camera! Camera! Camera!
The world is no longer the same.
Since my landscapes were foggy and failed to please
The plates I say are to blame.
But my three-legged horses and houses like trees
Have brought me undying fame.

THE LANE TO THE LAKE. By H. G. DORSEY. A ROCK-BOUND ROAD.

THE true artist will always try to get the most possible out of his particular medium, and always in such a way as to honor it best.

— WM. MORRIS.

ONE ought never to forget that by actually perfecting one piece one learns more than by beginning or half finishing ten. Let it rest, let it rest and keep going back to it and working at it over and over again until there is not a note too much or too little, not a bar you could improve upon. Whether it is beautiful also is an entirely different matter, but perfect it must be . . . perfected, unassailable. — JOHANNES BRAHMS.

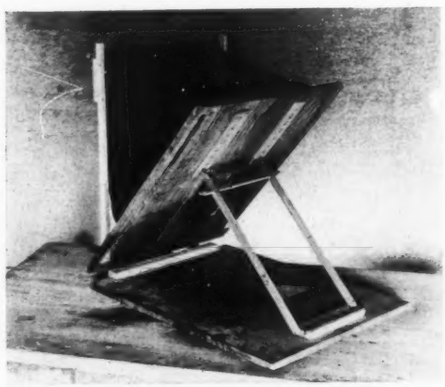
TRUE art consists neither in altering nor improving Nature, but in seeking throughout Nature whatsoever things are lovely and whatsoever things are pure. In loving these, in displaying to the utmost of one's power such loveliness as is in them, and directing the thoughts of others by winning art and gentle emphasis. — RUSKIN.

"BEAUTY oftenest waits on simplicity."

The Making of Two Useful Articles

BY AUSTIN K. HANKS

THE two articles which I shall try to describe are, first, the retouching frame; second, a device for holding securely the metallic cut-out forms while cutting prints oval, circular, or in other shapes, by means of the metallic cut-out and wheel.



No. 1. Retouching Frame. Rear View.

As the above and other devices which are manufactured for the aid of the amateur photographer are all more or less costly, and as the expense of the absolutely necessary articles is by no means slight, I shall do my best to explain how these two, which are indeed of great assistance, may be made for a mere trifle.

First, the retouching frame. This is very simple to construct and can easily be made in a few hours.

The main body consists of two pieces of wood, each 13 inches wide, 18 inches long, and 1-2 inch thick. The lower one or baseboard is bound on the bottom, about 2 inches from each end, by two strips 1-2 inch square 11 inches long, to prevent its warping. On the upper side (as shown in illustration 1) is a strip 1-2 x 1 x 10 inches at the extreme of one end, to which the upper board is fastened by two hinges.

At the other end, two strips, one 1-2, the other 3-8 inches high, and about 6 inches long. To the smaller strip we nail the ends of a support; two strips 3-8 inches square, 12 inches long, pointed at the upper ends, the lower ones being rounded to permit folding; these are held securely apart by a strip 3-8 x 8 inches, about 1 1-2 inches below the pointed ends. To the lower side of the upper board fasten two pieces of soft wood 1-8 inch thick, 1 x 6 1-2 inch, in which is cut a series of holes 1-4 x 1-2 inch each. The pointed ends of the support fitting in these holes, permitting the upper board or working surface being adjusted higher or lower as wanted when in use.

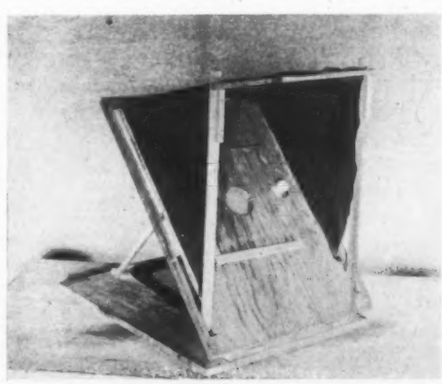
The upper side (as shown in illustration 2) forms our working surface. In the centre is cut a circular hole 2 inches across, the lower side of which is covered with a piece of ground glass 2 1-2 inches square (ground side up), this admitting the light by which to work.

The majority of retouching frames have a large opening of ground glass which illuminates the entire negative. The smaller one is preferred by the writer, as it allows only a small portion to be illuminated at a time, thus making it easier to work, also helping to center the attention on the particular part being retouched.

We now need a piece of tin 7 x 8 1-4 inches, in which is cut an opening 6 x 6 3-4 inches, leaving a frame 1-2 inch wide each side, 3-8 inch at the top, and 1 inch at the base, 1-2 inch of which is turned over, leaving a little groove which holds the negative.

The tin is not stationary, but fastened by two small tacks near the inside edges of the two sides, opposite which is screwed, about 1-4 inch from the outer edges, two screw-heads or handles (such as are used for cupboard doors, window-screens, etc.) This permitting raising or lowering the negative so as to have the portion to be retouched over the opening as desired.

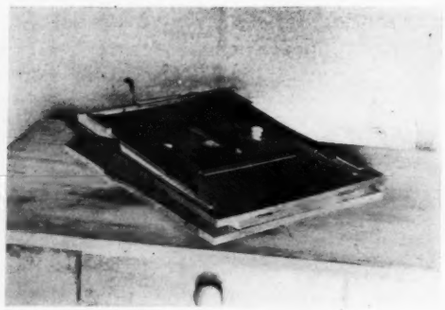
We now cut 1-2 inch from each side, two openings 1-2 x 16 inches, making a sort of frame with strips 3-8 inches square; the two side ones 15 1-2 inches long each, the top one 13 inches. These strips are connected with the upper surface by black cloth, forming a hood as shown in illustrations 1 and 2. The hood is held in place by a strip 11 inches long. This cuts off the light from the



No. 2. Retouching Frame. Front View.

upper surface of the negative, it being necessary to have the light come from the under side when working.

Also is needed a piece of ordinary mirror glass about 5 x 6 inches, to reflect or strengthen the



No. 3. Retouching Frame. Folded.

light passing through the ground glass and opening from beneath.

The entire cost is as follows:

2 1-2 in. boards 13 x 18 in.	.20
1 piece tin 7 x 8 1-4 in. with opening cut	.10
2 screw-handles	.05
2 hinges	.05
mirror	.10
Total cost,	.50

Many will have a piece of mirror which will answer O. K., and all, doubtless, will have nails, strips of wood needed, also a piece of ground glass 2 1-2 inches square; thus, the entire cost is but half a dollar. Nowhere could one be bought for that, or one with which you could do better work.

Our retouching frame is now complete. Before passing to our second "useful article" I shall endeavor to give a few points of advice to the beginner; also, perhaps, to the more advanced.

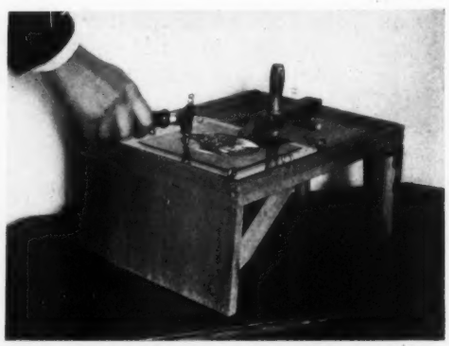
In using the frame it is well to work near a bright window, placing it on a convenient table or other support, also to have the mirror held by a block of wood or other article, so as to have the reflection strike the ground glass and opening.

The outfit which is needed in use with any frame is, for retouching faces and heads, a retouching "medium," two or three grades of hard pencil, 6, 4, and 2 H of Faber's Graphite leads, also a very fine sandpaper pad to sharpen them to a needle's point. For removing pin-holes, Nos. 1 and 3 Red Sable spotting brushes and a half pan of Paine's Grey, or lampblack.

In retouching faces we first apply to the gelatin surface the retouching "medium," this giving a "tooth" on which to use the pencil; using barely enough to go over the part to be retouched. The negative is then laid on the inclined surface with the head over the opening. With one of the hard pencils previously sharpened to as fine a point as possible, and with a gentle but decisive stroke, apply the pencil to the *lighter* spots or portions in the face, it being borne in mind that the high lights are dark, and the darker portions or .shadows are light in the negative. For instance, with any one having a number of freckles there is a mass of light spots in the negative. We apply the pencil to them, one by one, until we have a soft half-tone over the entire face, with the result as shown in plate *I*. As will be seen in *A* (which is from the unretouched negative) our subject has a sufficient supply of freckles which have been more or less exaggerated by the lens. The improvement will readily be noticed in *B*, which but faintly portrays the beauty of our little subject, and by the additional means of retouching we are enabled in part to "do her justice." The illustrations are not what might be termed skilled work, but serve to show what can be done in an amateur way.

Retouching is not difficult; it is intensely interesting, and, with a little perseverance and practice, most any one can in a short time do very pleasing work. If it is not right the first time, or in fact at any time, all of it can be removed without injury to the film, by going over it with a cloth dampened with turpentine. Then try it again.

One point of service which was given me by a professional retoucher is, "work with the grain of the skin." For instance, with more elderly people there is apt to be a few wrinkles in their foreheads, sides of the face, or chin; now, because the plate is in a vertical position do not try to make vertical strokes with the pencil across the wrinkles (which are light lines in the negative), but work *with* them, and not opposite to them; make the strokes in the same direction as the lines. The same applies to



No. 4. Device for Holding Metallic Cut-out Forms.

all portions of the face; work with the lines, but do not take them all out; do not remove every line you can possibly find, as some of them are lines of expression; these should not be removed or taken out.

Some have more prominent bones under the eyes,

some more prominent jaw-bones than others; for those who have, do not persist in making the negative one *even* tone, but blend one into the other and the difference will be marked. The more prominent parts or lines may, with care, be blended or softened without marring the modeling, as, if the negative is over-retouched the modeling, or expression, is partially or entirely lost.

At first it is well to make a number of proofs. Do a little retouching, make a proof and carefully study it; then do a little more, print another proof and note the difference; then again, and again. In a short time you will soon learn which should and which should not be taken out, and with a little patience and perseverance you will be able to do retouching that is not to be despised.

Before and After Retouching.

Removing or rather spotting the "pin-holes." This is done with a very fine brush and Paine's Grey, or lampblack mixed with water in the same manner as water-colors. Success lies in having the spotting the same shade as the surrounding film. The brush should taper to a fine point and be applied to the center of the hole. But should the spot show white in the print it can easily be covered with lampblack in the same way.

People as a rule advocate using India ink in spotting prints, but as a friend said, "when you dilute it, it changes its color and does not remain a pure black." Lampblack does not, but remains black whether light or dark, and is much preferred by the writer. By careful after-spotting of the prints, the "pin-holes" and other defects in the negative will easily be removed and no one, without a microscope would ever notice it.

Another very excellent idea which is partially in the same line, is what might be termed "dodging" or "faking." It may be known to most of us, while, perhaps, not at all to others; but for the numerous opportunities it affords for vast improvement, it is well to speak of it here in connection with retouching.

The "dodging" is accomplished by pasting over the front of the printing-frame a sheet of superior quality white Japanese tissue paper, the use of French crayon sauce, and an ordinary stub.

It is quite difficult to always find a proper place and light in which to work, and very often when the circumstances are favorable, we do not have a pleasing lighting, which could be much improved, while at other times we either have to work under difficulties or not at all. The latter being the case with the accompanying illustration (A, plate II), as it will readily be seen that the light was much stronger on one side, also that the negative was considerably underexposed; this was made necessary as the little one is naturally nervous, the plate receiving less than two seconds' exposure, with the result as shown.

The second illustration (B, plate II), shows a print from the same negative with combined retouching of the negative and "dodging" in printing, but without any intensification or reduction. You can judge for yourself the possibilities it affords for improvement.

The retouching was very slight, barely enough to soften the high lights, the remainder being accomplished in the printing. As before stated, we first paste a sheet of fine, white tissue paper over the

entire front of the printing-frame (this leaves about 1-4 inch between the negative and tissue paper). After the paste has thoroughly dried, place the negative in the frame as usual, then carefully study the thin or transparent portions of the negative (which need to be restrained in printing) by holding negative and frame on an even plane with the eyes (having the negative snug in one corner of the frame), then take a piece of crayon sauce and with a circular motion go carefully (on the outside of the tissue paper) over the most transparent portions in the negative, and with a stub shade it to the edges of the thin portions, also evening it in the center. Then print a proof; if it needs still more restraining darken those portions by again going over it with sauce and stub; if less, lighten it by gently going over the darkened places with an unused stub or finger-tip. It is also necessary to keep the frame in constant motion while printing, to prevent the grain in the tissue paper from showing, also to help graduate the portions darkened by the sauce, thereby preventing any of the manipulation showing in the print.

This little trick of "dodging" can be used to great advantage in many different ways, and its aid is practically unlimited.

After a few trials and a little perseverance, you will soon get into the nack and be able to "fake" very successfully.

Our little talk on retouching is concluded, and I shall now speak of our second useful article which needs no after-lesson, but simply a few words regarding its construction.

The little device, as shown in illustration IV, consists of a board or platform 10 x 13 inches on which is fastened securely a piece of plate or other heavy glass, 6 x 8 inches, about two inches from the end by means of six screw-eyes. We then secure a small wooden hand-vise, the lower part of which is stationary, being fastened to the under side of the platform which is built with two legs and a solid board all of which are five inches high, to permit free access to the lower or under handle. The solid board, at the plate glass end, also helps to prevent the main board or platform from warping.

The entire cost is:

1 1-2 in. board 10 x 13 in.	.10
1 piece plate glass 6 x 8 in.	.35
1 wooden hand-vise	.10
6 screw-eyes	.03
Total cost,	.58

To use, simply place the print face up on the plate glass, then the metal cut-out form in the desired position on the print, and both under the end of vise, binding tightly first by the upper, then by the under handle.

Print and form are now held as securely as could be desired, though it is well to place one hand on the opposite side of the cut-out form to steady the entire device, and the little wheel can be used with sufficient force to nicely cut the print without the slightest fear of moving the form while doing so.

It is quite true that no one can firmly hold a form with one hand and cut with the other; so that which ordinarily would be a task, by this little device, to the amateur is made a pleasure.

Before and After Dodging.

The Outlook for 1903

BY OSBORNE I. YELLOT

"Though winter howleth at the gate,
In our hearts 'tis summer, still."

By Dr. Geo. W. Norris

THE "PHOTO SECESSION"

THE year 1902 will go down into history as a period of transition in art photography in America. The previous year saw the breaking away of a large number of prominent workers from the rank and file, and in 1902 that movement was crystallized in an organization known as the "Photo Secession." There might at one time have been an idea in the minds of those not thoroughly familiar with the facts leading up to this breach that it would be a thing of only temporary duration, to be patched up like lovers' quarrels, but if such an idea ever existed it was dissipated once and for all in the month of December, 1902, by the appearance of that superb publication, *Camera Work*, which is the acknowledged "mouthpiece" of the secession movement.

A large portion of the year 1902 was given up to waiting for this publication. There was a general feeling of suspense in the photographic world throughout the entire year, and a half-audible feeling on the part of those not in the movement that it would be unwise to move forward along any well-defined lines until it was known how far the secession movement was going. Under such circumstances it is not strange that nothing of note was accomplished during the year.

But when *Camera Work* appeared at last it brought with it such an air of absolute finality that there is no longer any reason for suspense. True, the nature of the secession movement is not set forth in so many words, but reading between the lines, and more especially when read in the light of the editor's recent article in another magazine, wherein he stated that he was not at liberty to

disclose the innermost workings of the organization, it is clear that the movement is a most exclusive one, and the organization itself one which requires of the applicant for membership implied pledges which would be most repugnant to those progressive and truly independent American workers who are not already on its roll of honor. This organization, fortunately, or unfortunately, as one chooses to view it, contains on its roster the names of many of our very best American workers. The motives of its leaders are unquestionably of the highest, and the spirit which such an organization invariably engenders will no doubt result in a great deal of good work being brought forth by its members. I have heretofore said all I had to say or cared to say as to the ultimate wisdom of a movement of this kind, and would not now mention it were it not necessary to do so in order to show the conditions existing at the beginning of this year of grace, 1903.

Suffice it to say that the movement is, for the present at least, irrevocable, and that the photographic world at large may have no reason to expect in any of its enterprises the support of the "Photo Secession" or any considerable number of its members. The exhibitions having the full support of this organization as such are more than likely to be "invitation" affairs, in which the judging is done largely, if not wholly, in making up the list of the invited. Therefore it is plain to see affiliation will be impossible. It is to be hoped, however, that past experience has taught us all that there is nothing to be gained by constant bickerings one with another, and such orgies of crimination and recrimination as characterized conditions existing immediately prior to the secession. It is certainly possible for those who are not in the movement to view without ill will the successes of those who have, for what they considered good reasons, withdrawn from our midst; and it should be just as possible for them, on the other hand, to ascribe to us motives equally as good as their own, and refrain from the use of discouraging words when we fail in a moment to accomplish the things which it has taken them years to accomplish. I, for one, most sincerely hope that this attitude will be adopted by all concerned.

Therefore, as the matter now stands, it is clear that we, the American photographic world at large, must stand alone during the coming year. What we accomplish must be accomplished entirely through our own efforts.

EXHIBITIONS

The Philadelphia and Chicago exhibitions, held during the past fifteen months, have demonstrated quite clearly that there are enough of us to support exhibitions of a fairly creditable character. Without desiring to compare them with those which immediately preceded them, it has been quite clear that they were at least as creditable exhibitions as those which were held not more than five years ago, when the photographic world was undivided. That being so, there is no reason why those of the year 1903 should not be even better. Those who happen to be the promoters of these exhibitions should insist primarily upon having the best juries obtainable. That much accomplished, the juries should be made to realize that we desire that our work should be judged from the standpoint of artistic excellence alone, regardless of the result of cutting down very materially the number of frames hung. It is only by such a vigorous method of judging that we will ever come to learn what is truly artistic and what is not. If this be done consistently, at all exhibitions held throughout the coming year, I predict that artistic photography will have made giant strides before the time set for the exhibitions of 1904.

It is unfortunate that we are more than likely to miss the Philadelphia salon again in 1903. The causes which led to its discontinuance in 1902 were so varied and depended so largely upon conditions over which th photographic world in general had no control, that the cessation of that exhibition may well be regarded as final, — at least so far as exhibitions along the old lines are concerned. Exhibitions of that kind can only be gotten up and carried to success by the hearty cooperation of a number of men who are willing, for the good of the art, to sacrifice to a great extent their own personal feelings and desires. Unfortunately there is nowhere in the East, at the present time, an aggregation of men able and enough interested in the art to undertake a task of this kind. It is therefore extremely unlikely that the year 1903 will see a salon worthy of the name in any of the eastern cities. I hope, though, that the seed will be sown during the year which shall result in such an exhibition in 1904.

THE ST. LOUIS EXPOSITION

But unless present plans go awry, photographers will have an even greater opportunity in the St. Louis Exposition of this year. Upon the earnest solicitations of Mr. J. C. Strauss of that city, the management has finally consented to accord photography full recognition, through allowing photographs which pass the National Jury of Selection to be hung in the Art Palace, with paintings and other examples of the fine arts. It is assumed that as a matter of course the jury in this instance will be made up of eminent artists whose judgment as to the artistic worth of a picture, whether a photograph or a painting, will be generally regarded as conclusive. True, an effort is on foot to withdraw photographs from the consideration of this particular jury and allow them to be judged by prominent photographers, but it is greatly to be hoped that this movement will not be successful.

MOONLIGHT — Showing Mt. Hood, Oregon, fourteen miles distant. By H. M. PRINDLE.
Taken at 10.15 P. M. Fifteen minutes' exposure.

The editor of the *International Studio*, a well-known art publication, is ostensibly at the head of this counter-movement. But his course of reasoning is not apt to prove altogether convincing with those in charge of the exhibitions. In one of his earlier editorials on the subject, wherein he pleads for recognition of photographs, the editor says: "Or shall the photographic print, *whose sole end is to be an artistic picture*, be treated as a separate product of photography, and be assigned a position in the Fine Arts Building, under the same restrictions of having to be passed upon by an expert jury before admission as are usual in the case of oil paintings, water-colors, and black-and-white work? In a word, is it to be recognized that some photographers are artists and their prints artistic?"

Two months later, after the desired recognition had been promised, he writes: "Again, as to the National Jury of Selection: will it contain any representation of the photographers, *and, if so, of those who are identified with the best work, as shown in the various salons of this country and Europe?* Actual expert knowledge of photographic processes is of less importance than this wide acquaintance with the notable achievements . . . ."

It may, as I say, be a little difficult for the managers of the exposition to see why the judging of a photographic print "whose sole end is to be an artistic picture," should not be done by a jury of acknowledged judges of things artistic, but should be left to "those who are identified with the best photographic work, as shown in the various salons of this country and Europe," or those who have a "wide acquaintance with the notable achievements." The editor then goes on to suggest that the photographs should not be judged at all, but their selection be left "in the hands of a few photographers whose main duty would lie in judicious invitation of those prints that have already stood the scrutiny of juries of selection at the various salons." The editor of *Camera Work*, by the way, says that the position of the *International Studio* in this matter "represents thoroughly the spirit we stand for."

NEW WORKERS

The catalog of the Third Annual Chicago Salon shows the names of a large number of photographers heretofore unknown in the annals of our exhibitions, and as well the names of a few of our older and better-known workers. Reports have it that the exhibition is an improvement over those of former years, and the catalog shows that the number of prints exhibited has been held down to less than two hundred. The judging in this case was done by a jury made up largely of painters, and it is only fair to assume that the pictures which they passed were admitted on the score of their artistic worth rather than upon the dictum of a few who claim exclusive knowledge of the real worth of photographs from the artistic standpoint. All this is encouraging and only goes to prove what I have always claimed, that there are unquestionably hundreds of workers throughout the country who have in themselves all the elements of success. It only remains for each to develop his artistic instincts to the utmost, to study the pictures which have been declared to be artistic, in order not that he may copy them or follow the same lines, but that he may see therein the factors which go to make up a successful photograph from the artistic standpoint. He will learn that photography's fields are far more limited than those of painting, and will learn to save himself much loss of time and many discouragements by keeping within those limits.

A SUGGESTION

If I were writing advice, instead of a forecast, I would urge my readers to study well for one year but one thing — simplicity. Let your compositions, whether in landscape or portraiture, contain the smallest possible number of elements, and treat those few elements with the utmost simplicity. Therein lies the one great predominating feature of all the truly successful photographs ever made. Therein is the test which will be intuitively made by every jury of artists which may have to pass on your pictures during the coming year. The moment the rule is violated your photography lays bare its limitations and proclaims itself a handicraft and not an art.

Looking forward into the year now fairly upon us I can see much of encouragement and discouragement. We have done but little in the past, — we can hope to do but little in one short year. But I think I can see ahead of us a gradually dawning era of artistic improvement in the rank and file of the army of serious workers. While it is too much to hope that any of our number may accomplish anything truly great in this one year, it is not too much to hope that we all may come to its end with a higher and truer idea of the possibilities of our art, and with a more perfect conception of the difficulties which beset our path. If we shall succeed in doing only this we shall have laid the foundation for greater things in the years to come.

Foreign Abstracts

Action of Hydrogen Peroxide on the Film About ten years ago Le Roy showed that a strongly alkaline solution of hydrogen peroxide could be used as a developer; that it acts as a reducer in acid solution was shown by Andresen, in 1899; and Russell has recently shown that a very small amount of peroxide vapor will fog a plate. Dr. Luppo-Cramer now finds that although a trace of peroxide, either in liquid form (solutions from 0.03 to 0.1 per cent) or as vapor, will fog the plate or bring it to the zero state, according to the strength, a stronger solution, as three per cent, will remove the fog and cause a complete reversal of the picture, a chemical solarization. He considers that the effect is dependent upon the gelatin, as collodion plates are not similarly affected. He thinks that the chemical connection between the gelatin and the silver bromide is ruptured by the hydrogen peroxide, and the silver bromide thus rendered capable of easy reduction. (Phot. Corresp., 1902: 563).

Analysis of Dry Plates A simple and thoroughly proved method for the determination of the silver bromide content of a photographic dry plate is detailed by Bellach as follows: The film is treated in a porcelain dish at the ordinary temperature for about fifteen minutes with a 1 : 20 solution of potassium cyanide, until the last traces of silver bromide have gone into solution. The solution is poured into a beaker, the dish well washed into it, the whole solution warmed and decomposed with concentrated nitric acid, whereby hydrocyanic acid is evolved, and silver bromide reprecipitated in a very dense form which is easily washed and filtered. This operation must be performed in a strong draught, on account of the highly poisonous nature of the acid fumes. The precipitate is to be washed by decantation and filtered on a weighed filter, washed several times by decantation, dried at 115 degrees and weighed. If electrolytic appliances are at hand, it is naturally simpler to electrolyze the silver potassium cyanide in the usual manner. The E. M. F. should be 3.7–4.1 v., the current density 0.2–0.5 A. per 100 qcm. (Allg. Phot. Qtg., 1902, 9: 165).

New Investigations on Phototropy Biltz has found that some derivatives of benzilosazone, a body with the formula

$$\begin{array}{l} C_6H_5.C{=}N.NH.C_6H_5. \\ \quad\quad\quad\

Camera Work (A Review)

BY ARTHUR HEWITT

SUMPTUOUS and very refined in its entirety, the first number of *Camera Work* has been recently published by Mr. Alfred Stieglitz, of New York.

The illustrations, mostly photogravures on India paper, chiefly reproduce the work of Mrs. Gertrude Kasebier. Few of them, however, appear for the first time.

A. Radcliffe Dugmore has been permitted to show one of his charming bird-pictures, while Mr. Stieglitz takes advantage of an every-day scene on the railroad tracks, rendered murkily atmospheric by the recent soft-coal nuisance. In the center of the picture a moving locomotive is belching out its opaque fumes.

The literary features start with a clever effusion on Mrs. Kasebier's personality, work, etc., by Mr. Charles H. Caffin. This is seconded by another effusion on the same lady by Miss Frances Benjamin Johnston, some other minor articles, and then a whole lot of wearisome cross-correspondence about "Pictorial Photography" and the St. Louis Exposition, the gist of which is evidently intended to reveal the fact that the editors and their chosen few intend to boycott, in 1904, the Fine Arts Gallery at St. Louis, offered as it will be to photographers generally: and why? Because, as I see it, Mr. Alfred Stieglitz, for instance, is not on the National Jury of Selection. Fie, fie, Photo-Secessionists!

I must wander for a moment and quote from the first pamphlet recently issued by this body:

> The discipline of the organization shall be in the hands of the Council.
>
> In order that the Photo-Secession may exercise a potent influence upon the welfare of pictorial photography each member will be duly advised by the Council of the attitude which the Photo-Secession will assume toward any important exhibition, and whether it is deemed desirable that the members of the Photo-Secession shall exhibit as a body, or individually.

And so it is that I, loving as I do much of the work attributed to the Secessionists, cannot help feeling that they again, through their organ, *Camera Work*, throw down the gauntlet to those outside their pale, and that gauntlet has for its plates of steel the wretched methods and connivances of a mercantile trust; and I, for one, although outside my duty as a reviewer, challenge the right of the Photo-Secessionists as a body to be the sole gatherers of American representative photographs for any important art exhibition.

However, let me suggest that when it is with photographers, as Sidney Lanier writes (and Jos. T. Keiley quotes in his contribution to *Camera Work*):

> The experience of artists in all ages is reported by history to be of precisely the same direction. That principle is that the artist shall put forth, humbly and lovingly, and without bitterness against opposition, the very best and highest that is within him, utterly regardless of contemporary criticism.

Then truly will the millenium have dawned for American Photography.

Notes and News

FIRST MINNEAPOLIS PHOTOGRAPHIC SALON

MINNEAPOLIS, MINN. The Minneapolis Society of Fine Arts, in cooperation with the Minneapolis Camera Club, announces that the first Minneapolis Photographic Salon will be held in the art gallery of the Public Library Building, in the city of Minneapolis, Minn., from Jan. 17 to Jan. 28, 1903.

Exhibitors at the Chicago Salon, closing about Jan. 4, are invited to send their work to the Minneapolis Salon, and, together with local and other exhibits, a most successful salon is anticipated.

The Jury of Selection will consist of Mr. Robert Koehler and Mr. Alexis J. Fournier, of the Society of Fine Arts, and Mr. H. E. Murdock, president of the Camera Club.

No charge will be made to exhibitors and no awards are offered, but the acceptance of work by the Jury of Selection will be an honor of no small degree when its personnel is considered.

A pamphlet containing full particulars and rules for exhibitors, together with entry blanks, may be had by addressing Mr. C. F. Potter, Jr., 13 South Seventh street, Minneapolis, Minn., of the committee on publicity.

BOSTON, MASS. A private exhibition of portraits, by leaders in the new school of photography, was held by F. Holland Day, in his studio, Boston, Dec. 4 to 7 inclusive.

The collection included examples of portraiture by the most eminent photographic workers, both of this country and abroad, and was shown by Mr. Day in support of the theory that the artist's individuality may be as strongly expressed through the medium of the camera as through that of brush or pencil.

Fifty-four examples were shown of portraits of Mr. Day by the following artists: J. Craig Annan, of Glasgow; Mohund Ben Ali, of Algiers; F. W. Birchall, of Boston; Will Cadby, of London; Alvin Langdon Coburn, of Boston; Charles G. Cox, of New York; Reginald Craigie, of London; Robert Demachy, of Paris; Mary Devens, of Cambridge; Frank Eugene, of New York; Frederick H. Evans, of London; George H. Hastings, of Boston; J. J.

Hawes, of Boston; Frederick Hollyer, of London; Gertrude Kasebier, of New York; J. A. Laurenz, of Boston; C. J. Rogers, of New York; Eva L. Watson, of Philadelphia; Edward J. Steichen, of New York; Waleray, of Paris, and Clarence H. White, of Newark, O.

With scarce a single exception, the pictures showed strongly marked characteristics as expressing each artist's thought. Each picture was distinct and separate, expressing a remarkable range of tone and treatment, and demonstrating that individuality showed itself in the work of the artist.

ILLUSTRATION FROM "THE NEW PEIRCE PORTFOLIO."
Copyright, 1902, by Robert Howard Russell.

"The New Peirce Portfolio," by Thomas Mitchell Peirce. Seven beautiful compositions, showing the American girl at outdoor pastimes and in conventional studies. Pictures o the Tennis Girl, the Golf Girl, the Ping-Pong Girl, etc. These drawings are among the finest that Mr. Peirce has done, and they may truly be said to mark an advance in his art. Published by R. H. Russell, New York.

"The ABC of Photo-Micrography," by W. H. Walmsley, is a practical guide for beginners. Mr. Walmsley is well known as one of the most expert of the workers in this fascinating field. He has written this little book to explain — as simply as possible — the elementary principles and practice of photo-micrography. While written for beginners, it contains much information useful to more advanced workers, and is profusely illustrated with fine half-tone engravings from photo-micrographs by the author. Tennant and Ward, New York.

ROCHESTER, N. Y. The Bausch & Lomb Optical Company, Rochester, N. Y., advise us that their action in advancing the date of closing their Quarter Century Photographic Competition to October 3, 1903, has met with very general approval. A number of the foremost photographers of the country have signified their intention of entering the $3000 competition, and the special award of $300 as a grand prize for the photograph showing the best lens work of any submitted in the competition, is attracting a good deal of attention among photographers who seek to know the lens and its possibilities.

The Seneca Camera Company, of Rochester, announces a new management both as regards office and factory, for the year 1903. M. E. Graham, president; J. B. Hamilton, vice-president; and W. T. Crouch, treasurer, are the officers of the new company, and they have ready an entirely new line of photographic goods which are guaranteed first-class in every respect.

BROOKLYN, N. Y. According to a prospectus recently sent out by the Brooklyn Academy of Photography, it fills a valuable part in the photographic life of that city. Every month they have a print show. One month it is composed of developing papers, another month of blue-prints, and then follow, in succession, carbons, platinotypes, gum bichromates, etc. Members have the opportunity of seeing what the others are doing, and of making comparisons with their own work. On the third Monday of every month there is a lantern show, at which lantern slides, made by the members, are tested and criticized, if they so desire. At frequent intervals a demonstration is given, by a professional or an experienced amateur, of some paper, chemical, or apparatus, which is of interest to all, and at the end of the season medals are awarded for superior work in lantern slides and prints.

Should the ambitious amateur at any time have knotty questions which he cannot solve, he will always find the "latch string" hanging out on Monday nights, and if he will make his troubles known to any of the members in attendance they will be glad to give him the benefit of their experience.

BOSTON, MASS. The Lens and Brush Club has arranged a program, for the winter, of exceptional interest to photographers of Boston and vicinity. On the second Friday of each month some prominent artist will address this club and give a criticism of pictures.

There will be, in addition, a class under the auspices of the club, which will be conducted by an artist of recognized standing. The first six evenings will probably be given to lectures in posing, by Mr. E. W. D. Hamilton of the State Normal Art School, whose talks on posing and lighting, illustrated by a model, at the club a short time ago, were much enjoyed by the members.

The following classes will be conducted by such men as E. L. Major, H. D. Murphy, and Cyrus E. Dallin, and are open to all, whether members of the club or not. An admission of seventy-five cents per evening will be charged.

A new feature of the club meetings will be a series of "Ladies' Nights," when any lady interested in photography will be invited to attend. The classes will also be open to ladies.

PHILADELPHIA, PA. The Photographic Society of Philadelphia has decided to purchase a home of its own. The new location will be within three squares of City Hall, but exact information is withheld. The committee reported that desirable quarters had been found and that an expenditure of from $25,000 to $27,000 was required. The society authorized the purchase of the property and the creation of a first mortgage for half the amount with a second mortgage for the remainder to be taken by members. Subscriptions of over $5,000 from members, on the second mortgage, were reported. The society has also approved an increase in annual dues from $10 to $15 and of life membership from $100 to $150.

BALTIMORE, MD. The Photographic Club of Baltimore opened an exhibition in that city from Dec. 9 to 13, inclusive. The exhibition was the result of the prize-print contest last spring, and pictures were received from Illinois, New York, Pennsylvania, Washington, and elsewhere.

The judging was done by Mr. Theodore Marburg, president of the Municipal Art Society; Mr. Charles E. Fairman, president of the Capital Camera Club of Washington; and Mr. Frank V. Chambers, editor of the "Camera," Philadelphia.

The Crucible

PRESERVATION OF ALKALI SOLUTIONS

When an alkaline solution which has stood in a soft glass bottle for a long time is again to be used it is often found that it has attacked the glass and that as a result it contains a quantity of gelatinous, flocculent, or scaly precipitate. The photographer who is not a professional chemist is often puzzled by this appearance, and generally throws the solution away, fearing to use it. This is not at all necessary. The solution is as good for all photographic purposes as it ever was. The precipitate is silica or a silicate and is absolutely inert chemically. If the quantity is considerable it may be filtered out, but this is not necessary, and when the solution is one of caustic soda or potash, or ammonia, it is not advisable, as these solutions deteriorate rapidly by filtering, owing to the absorption of carbonic acid in one case, and the evaporation of ammonia in the other. This etching of the glass, which occurs most readily with soft glass bottles, is a considerable source of trouble to the analytical chemist, who finds that his standard solutions of alkalies gain in strength by thus attacking the bottles, and so have to be frequently restandardized. The new Jena glasses resist chemical action much better than the older kinds, and are now almost exclusively used for chemical vessels, as well as for lenses. In both cases, unfortunately, the price is much higher, but the advantages are so great that we willingly pay it in both cases.

RAPID DRYING OF NEGATIVES

It is often necessary to rapidly dry a negative in order to get a print in a hurry, and with certain very soft gelatins, the past summer, I found that I invariably got bacterial growths unless I dried very rapidly. The old practice in this respect is to use alcohol, and the best process is to flow the plate in a flat dish with enough absolute alcohol, or at any rate ninety-six per cent, to cover well. Flow the alcohol back and forth for two or three minutes, then pour it into a bottle. Repeat this two or three times, then stand the negative aside, and it will be dry in ten minutes or less. I have not found that a final treatment with ether, which is often given in drying chemical substances, is of any advantage, as it does not seem to penetrate the film well. As the alcohol is expensive, it should be carefully saved and used again. With many plates to dry, a considerable expense is otherwise incurred. As the alcohol takes up water it naturally loses its drying power, and the water must be extracted, so that it can be used again. The way to do this is as follows: Get from a mason a large lump of quicklime. Slack lime is worthless for this purpose. Get a large lump from the middle of a freshly opened barrel and remove all the soft, powdery, air-slacked lime from the outside. The quicklime will be darker in color and hard. Break up the lump into small pieces with a hammer, taking care not to get any particles into your eyes, and put them in a wide-mouthed bottle. Pour your diluted alcohol upon the lime and cork well. Shake occasionally, and in a couple of days the alcohol will again be water-free, if you have used lime enough. The alcohol should now properly be distilled, but for our purpose it may simply be filtered into another bottle and tightly corked.

Personally I now prefer to harden my plates with formaldehyde. If I possibly can, I wash before this operation, as hardened plates demand five or six hours' washing for complete elimination of hypo. The hardening, whether done before or after washing, is accomplished by five minutes' immersion in a five per cent solution of commercial formaldehyde, which is or should be a forty per cent solution of the gas. After this treatment the plates may be dried at any practicable temperature without danger. I have often laid them face up on the top of the kitchen range and dried them in five minutes; and at other times I have held them two inches above a gas flame until the steam poured out in clouds and the glass became too hot to touch, without injuring the negatives in the slightest. On one occasion, for experiment, I heated a plate in the gas flame until it cracked from the heat, and the gelatin burned at the edges, without melting or distorting the negative in the slightest; and a negative with one end dried thus, and the other half slowly, showed no drying marks.

TWO STRANGE CAUSES FOR PINHOLES

During the past summer I found while using a number of different makes of plates, that one or two were coated with emulsions made of very soft gelatin. These held water with great obstinency and in damp weather were often twenty-four hours in drying. The result was that they invariably contained round holes, sometimes a millimeter in diameter. As these often appeared on negatives which were perfect when the washing was complete, an investigation was made. It was found, by examining a batch of slowly drying plates at intervals, that these holes appeared within a short time and gradually grew larger until the plates were well advanced in drying. The fact that gelatin is one of the recognized culture-media for bacteria, and that many species liquefy, it indicates that these plates were infected with one of the liquefying species, which continued to grow and destroy the gelatin as long as the conditions of moisture and warmth were favorable, and then perished. The liquefied gelatin shrank to the edges on drying and thus left circular patches of bare glass. These soft plates were thereafter dried by the use of formalin and this trouble ceased.

About the beginning of August plates of another make, of very hard and quick-drying gelatin, which it had not been deemed necessary to harden, also began to show holes. It would not be fair to call these pinholes for they were of irregular shapes and sometimes more than an eighth of an inch long. There were not many of these; usually one or more would be found on one or two plates in a batch and the rest would be free. After this had happened several times, one evening I rested a wet plate on two nails set in the wall near a gas jet, where it was expected to dry in an hour or two. Happening to look at it ten minutes later a fly was seen sitting on it. Fearing that it would get caught in the gelatin I frightened it away and the mystery was solved. The fly had been eating the moist gelatin and had left a hole of the shape that had been puzzling me. Banishing the flies from my drying-room I had no more trouble of that kind.

A WINDING ROADWAY.

Taken Aug. 20, about 1.30 P. M., in good light, with 1-100 second exposure. Stop F.-8, with Eastman Film, on W. D. Platinum paper. No filter was used.

Open Criticism

"If you would be pungent, be brief; for it is with thoughts as with sunbeams — the more they are condensed, the deeper they burn." — *Southey*.

We print herewith four open criticisms on "The Defender" picture published in our December issue, and we print them in the order of their respective merits as we see them. With the increased size of page, we are able to give more space in this issue to this department, which has now become of much interest to our readers.

No. 1. — A very poor photograph of an interesting subject. This negative fails to give the least idea of the old "Defender," because of the badly chosen viewpoint. None of the graceful lines of the yacht have been reproduced, and there is nothing to even suggest their beauty. Aside from this, the negative lacks strength, the spars and rigging being especially bad. The background, though slightly out of focus, would be good were it not for the ugly nose of the yacht.

D. D. Cook,
Newark, N. J.

No. 2. — A photograph of any craft which fails to show its lines and rig is not a complete success. In this respect the photograph is a failure.

In composition, the upper lines lead the eye into the water at the end of the wharf where there is — nothing. The lower lines and that formed by the mast lead the eye to its foot, where it runs right and left to scan the lines of a shapely hull, and is again disappointed. All the good I can see about the picture is in the technique, which is very fair.

J. S. Henry,
Hopedale, Mass.

No. 3. — The view of this boat is incomplete, as it shows but a little more than half of the boat, and the lighting would have been better if the sun had been more behind the camera, so the shadows would be slightly beyond the boat and under it.

Placing the camera farther back, so as to include the whole boat, with the sun a little more behind the camera, and using a smaller opening, and longer exposure to give more detail, would have improved the picture. It would have looked more natural, resting in the water.

W. C. Webster,
Jaquins, N. Y.

No. 4. — The picture shows the "Defender" in a poor light. The wharf is not a good background. The bow only is not a picture of the "Defender."

To remedy, photo the other (port) side of the boat; use the length of the plate horizontal, and place the camera at a distance to take in a little more than the entire boat; if possible, secure sky and water only for the background.

H. Fleischmann,
Philadelphia.

We give another picture in this issue. Use a postal card and limit yourself to one hundred words. The prize award is one year's subscription to the Photo Era.

The Round Robin Guild

Conducted by Elizabeth Flint Wade

(Any amateur photographer may belong by sending in his name and address)

PHOTOGRAPHIC ATROCITIES

"Oh, Liberty!" cried Madame Roland, "How many crimes are committed in thy name!"

We might apostrophize this famous speech and say, "Oh, Photography! how many atrocities are committed in thy name!"

These "atrocities" appear not only in the daily press, — with its coarse screen reproductions produced with haste, pr nted on flimsy paper and called illustrations — but they finid their way into the pages of some of our leading illustrated periodicals. In the paper that depends on the camera for its pictures these atrocious things appear with every issue. Evidently the artist who made the photograph, the editor of the paper, and the head of the "art" department believe that anything produced by a camera is worthy of reproduction and of being dignified by the name of picture. We talk about the camera being an educator. That is a truth; but it is also a betrayer of the person behind it, making it very cognizant that the producer of such pictures as these "atrocities" is entirely devoid of any knowledge of even the first principles of art. To say nothing of anything else, the lighting is everything that is bad, and the composition everything that is worse than bad.

Then, too, the anachronisms which are perpetrated in so-called "studies" are so ludicrous that one wonders how they ever passed the portals of the editor's office door, much less found their way to the "art department" of the paper. We see the subject not only on the "wrong side of the cow" but on the wrong side of everything. Before me lies a fearful example of this sort of work. It is in a recent number of a leading illustrated paper. It purports to be the picture of a girl spinning on an old-fashioned wool-wheel. Now a wool-wheel is so much a thing of the past it is no wonder that the young women of the present generation should not know how to use it, but it is a wonder that being ignorant they should be so willing to betray their ignorance as to portray it in the camera.

Now any one who knows anything about spinning wool rolls by hand on the old time wheel, knows that on the head of the wheel is placed a bundle of the white, fluffy things, laid lightly together, ready to the hand of the spinner; that the band of the wheel crosses at the top where it encircles the smaller wheel at the head; that the wheel must be so placed that the spinner may have room to walk back and forth to draw out and wind up her thread, and from the hand of the spinner depends the part of the roll that is still unspun, while from between the thumb and forefinger runs the newly spun thread to the spindle, held taut and firm. So much for the correct accessories of the picture, and now for a description of this picture which was supposed to be a Puritan maiden busy at her wheel.

The wheel itself was drawn close to a mantel from which hung a "drape," a thing with which our foremothers were too sensible ever to disfigure their homes. The girl stood between the wheel and the mantelpiece, the rim of the wheel coming against the mantel in such a way that the spinner was imprisoned in a cul-de-sac. The wheel-head, which is detachable, was put in so that it canted over toward the big wheel in a way that no well-bred wheel-head, ready for business, would think of doing. One hand of the spinner was holding the "rim" of the wheel as if setting it in motion in that way, while from the other depended loops of string, much as if she had gathered up a wrapping string, one end of which was fastened to the spindle. As for rolls, there was not even the hint of any material to serve as an excuse for the loops of string; and as for the Puritan costume, it was as far away from everything as the wheel.

And yet the editor called attention to this special picture as a fine example of the way in which our Colonial Dames occupied their time.

Shades of our foremothers! Let us hope their sight is holden so that they see not the things of this earth, especially our photographic atrocities.

Let us say no more, but let us make a New Year resolve to refrain from committing any more atrocities such as these, and as far as lies in our power to restain our photographic friends from the same misdemeanors.

We almost need a photographic Anthony Comstock.

ORGANIZING A CAMERA CLUB

In the November number of the PHOTO ERA a notice was printed to the effect that suggestions on organizing and conducting a Camera Club would be given in the December number. Instead of fulfilling this promise, the space of this department was largely devoted to hints on Holiday gift-making, using the camera as a right-hand helper. As a consequence, those readers who had looked forward to the promised article were disappointed, and many letters, asking for the article which failed to materialize, were sent to the editor directly after the issue of the December copy. It is hoped that the suggestions have not come too late for the use of those who desired such an article.

According to Matthew Arnold's idea of the Americans, three are quite sufficient to form an organization, for he says that whenever three Americans get together they organize. This is partly true, for three people interested in one subject are quite enough for a nucleus round which shall gather as large a number of individuals as are interested in the same subject that the special location may furnish.

There is, doubtless, no subject of wider interest, or more enthusiastically followed, than that of amateur photography, so in the case of the three amateurs desiring to organize, they will immediately find many followers. The thing is to begin. A list is first made of the amateurs living in the vicinity, and a notice sent to each, to the effect that all amateurs interested in forming a Camera Club are invited to meet — at some place designated, and on some special evening — for this purpose. The invitation is, of course, signed by the originator, or originators of the plan.

At the meeting a chairman pro tem is appointed who states the object and proceeds to take the voice of the meeting. If enough are in favor of the plan — and you know three are enough to organize — then either the officers or a board of directors are immediately elected. It is customary to have a board of directors, and the officers are elected from the members of the board. In any board a certain number retire each year, and a corresponding number is elected to fill the vacancy. It is customary for a third of the board to retire annually, and in a new organization those who are to retire in one, two, and three years respectively, are selected by lot. For instance, if a board has nine directors, the names are written on slips of paper and dropped into the ballot-box. They are then drawn out, one at a time, the first three drawn serving for one year; the second three, two years; and the remaining three, for three years.

The newly elected board retires, and elects from its numbers a president, vice-president, secretary, and treasurer. The dues are next decided; then time and place of meeting; a constitution and by-laws drawn up, or a committee appointed to construct one; a committee on program, and one on rooms, appointed, and the first business of organization is begun.

The constitution is, of course, arranged to meet the requirements of a simple organization, and for that reason should be made as short and concise as possible. Any form of club constitution may be used as a model. The articles of a simple constitution may be limited to five: Name; Object; Officers; Membership; and Amendments. The by-laws would come under the article: Meetings; Duties of Officers; Membership Dues; Application and Election; Committees; Order of Business; and Amendments. Under these heads are constructed the rules and regulations of the club. It is better to conduct the meetings for two or three months before putting the constitution into print, as if there are alterations or amendments they will present themselves during the first meetings.

Unless the organization is a large one, and the dues warrant it, it is wiser to begin by meeting at the home of one of the members. Usually a club can meet in this way for one season, but where practicable, it is, of course, better to have a club-room, and such a room may usually be found at a nominal price.

While a Camera Club is an organization out of which one gets a great deal of amusement, its first object is the advancement of its members in the art of photography. The meetings will therefore be arranged with this end in view, and it will be the duty of the committee on programs to provide object-lessons in all departments of photographic work. There is the inexhaustible one of development. We used to be instructed to stick to one developer until it was mastered. This is, of course, a good plan for the beginner who has yet to learn the chemical effects of the different ingredients which compose his developer, but if one wants variety in his negatives he must learn to use a developer that will produce the effect aimed at. One of the best object-lessons in this line is to have one of the members skilled in the uses of different developers make several negatives of the same scene or object on the same plate and with the same time of exposure. Then for a demonstration use a different developer for each plate, producing in one negative a sharp contrast, in another a soft negative with delicate detail, in another a crisp negative with high lights not too strong, and with no muddy shadows, etc, etc. The next object-lesson would be the printing from these same negatives, showing which paper to use, and how to manipulate it to get the best effects.

Another fine object-lesson is on the point of view. This may be demonstrated by a number of the club photographing the same scene or the same object from different points of view. When the negatives are finished and the prints made the artist member of the club may be invited to give a critical talk on the merits of the different pictures, not omitting to point out their defects.

As soon as possible a club should become the possessor of a lantern. The lantern-slide is a most striking object-lesson when demonstrating the merits and demerits of a picture.

One thing which the demonstrator should bear in mind is, that what looks so easy when he manipulates the plates and papers is a difficult task to the tyro. It is, therefore, a wise plan to let as much of the work as possible be done by the members, for an ounce of experimental knowledge is often worth several pounds of theoretical knowledge.

One thing which the members of a Camera Club should remember is, that there is an art side to photography, and not be so intent on the technical part of the works as to lose sight of the artistic side. As examples of study in portrait work the club could buy photographs of the works of great painters, and for suggestions in composition the photographs of landscapes done by masters in landscape painting.

In the early numbers of the PHOTO ERA will be found a series of articles on great painters and their methods, which would be of great service to the members of a Camera Club. These articles could be separated from the magazine and bound together in convenient form.

In the PHOTO ERA for November, 1899, will be found a short article on how to form a Camera Club, which will form a valuable supplement to the suggestions here given.

Any questions on individual points will be gladly answered by the editor of the Round Robin Guild. If an answer is desired by mail, enclose stamp for return postage and letter will be sent by return mail.

No place is so small but what there will be found amateurs enough to form a club, and in choosing a name for the club, no matter how small, it is better to call the club by the name of its town, as this not only saves trouble in corresponding but makes the club one of the institutions of the place.

PREPARING PHOTOGRAPHIC GOLD

Several correspondents are anxious to know how to prepare gold for photographic use. Where one prepares his own gold there is a saving of quite half the expense, and if one uses any quantity of this precious metal it is economy to do this instead of buying it ready prepared.

Gold is used in photography in the form of chloride of gold. To make this chloride, pure gold is dissolved in a solution called "aqua regia," the only known solvent of gold. The solution is made by mixing together in the proportions of one part nitric acid, one part hydrochloric (muriatic) acid, and three parts of water. The gold to be dissolved is first weighed, then put in a glass vessel, and over the gold is poured eight times its weight of aqua regia. The glass vessel is set in a dish containing hot water and placed on the back of the stove until the gold is entirely dissolved. The solution is then poured into a porcelain crucible and subjected to heat until all the free acid has evaporated. After the acid is evaporated, a little distilled water is turned over the gold and then evaporated, and to every grain of gold chloride is added three drachms of distilled water.

Chloride of gold and sodium is prepared by dissolving chloride of sodium (common salt) in a solution of chloride of gold and then evaporating the liquid. The chemical formula for chloride of gold and sodium is $NaCl,AuCl_3+2H_2O$.

Gold coins and gold jewelry always contain more or less alloy. Gold coins contain so little alloy that it is not necessary to separate it from the gold; but in cases where one uses jewelry, the gold must be separated from the dross. To do this, first dissolve the gold in the aqua regia according to directions given, then dilute the chloride with distilled water, and add a small quantity of ferrous sulphate. The sulphate causes the gold to be precipitated, and it settles to the bottom of the vessel in the form of a brown powder, while the alloy is held in solution. When the gold has all settled to the bottom, which will take some little time, turn off the liquid carefully, wash the gold in distilled water and redissolve the gold in fresh aqua regia.

Gold-leaf, such as is used by dentists, is a desirable form for preparing gold chloride, and if one has a friend among the dentists one can get a small quantity at a time.

In using the two acids which make the aqua regia be very careful not to get any on the skin, as the burn is very painful. If one is so unfortunate as to burn himself with acid do not put water on the burn but cover it immediately with oil or grease. This stops the action of the acid on the skin. Lime water and sweet oil is a very desirable preparation to have where one is working with caustic chemicals. It will allay the pain and arrest the action of the chemical almost immediately.

LANTERN-SLIDES BY CONTACT PRINTING

Contact printed lantern-slides are the easiest slides to make. The lantern-slide plate is placed on the negative, film to film, and the exposure made to gas or lamplight in the same way as one makes a transparency or a bromide print. When printed, the slide is developed in the same way as a negative, using a developer which works slowly and evenly, and one which will bring out detail well.

To make a good slide the negative must be free from spots and scratches, have fine detail in the shadows, and there should be no harsh contrasts between the lights and shadows. Every imperfection is magnified many times when the picture is thrown on the screen, so special care is required in their preparation. The developer must be fresh, the hypo must be clean, and when the plates are drying they must be set in a place free from dust.

To one who has never attempted lantern-slides those made by contact printing are the best for first experiments. Almost every negative is improved by trimming, and in a large negative there are often parts that make an excellent subject for a lantern slide. If one uses a small film camera, and has some good film negatives, they are the ideal negatives for contact lantern slides. In printing lantern-slides it is a good plan to use a mat to block out all the parts not to be included in the picture. Mats may be had of different sizes and shapes, but the most satisfactory are the squares and oblongs.

The winter months are just the time for making and showing slides, and even with a small lantern one may arrange very pleasant evening entertainments for his friends.

ANSWERS TO CORRESPONDENTS

Ben. H. — By "toned vignettes" is meant a picture which has been vignetted, and then, before toning, the white ground around the picture has been flashed in the light just enough to give it a tone off the pure white. This makes a more pleasing print than when the paper is left a clear white.

Bertha Follen. — The fog which you describe as covering your negative is doubtless a chemical fog. It can sometimes be removed by taking equal parts of glycerin and water and adding to the mixture an equal quantity of a saturated solution of hyposulphite of soda. Let the negative remain in the solution until cleared. It sometimes takes three or four hours to clear the plate.

F. F. D. — No; one does not need to be a subscriber to become a member of the Round Robin Guild. Send in your name and address and a membership ticket, admitting you to all privileges of the Guild, will be sent you. The print which you enclose shows that you have a good idea of the art side of photography. The landscape is an exceptionally fine bit of artistic work

Carlos M. — Yes; aristo paper may be developed, metol being one of the best agents for that purpose. Print until a faint image appears, then develop in a one solution metol developer. One gets very fine effects in such prints, and in these cloudy days, when sunshine is at a premium, it hastens the work of printing very materially.

F. C. Lane. — To make a paper negative use very fine paper, either the thin velox or very thin platinum. Make as good a print as possible on this paper from the paper print. Wash and dry, then wax the paper with pure white wax, either melting and submerging the print in it, then draining and removing the superfluous wax by ironing the print between two sheets of photographic blotting paper, or lay the print face down on a clean sheet of paper and apply the wax to the back of the print by means of a warm iron and a stick of white wax.

A. T. Hudelson. — Circulars in regard to the Round Robin Guild are being prepared and will be sent to all members early in January. Am glad you are so interested in the department and trust to see some of your work in the Guild contests.

Eleanor Barnes. — If you have good negatives of unusual places you can dispose of them to dealers in lantern-slides. From your description and without seeing any of your prints I should infer that you had many pictures of unusual merit and value.

Dora Estes. — A formula for eikonogen developer suitable for developing bromide prints is made as follows: Solution No. 1. Sulphite of soda, one and one half ounces; hot water, twenty-two ounces; eikonogen, one half ounce. Dissolve the sulphite of soda in the hot water, then add the eikonogen. Solution No. 2. Sal soda, four ounces; water, fifteen ounces. To develop take three ounces of No. 1 and one ounce of No. 2.

Katherine L. — You will find in the July number of the PHOTO ERA directions for making blue transparencies from spoiled plates. If you are not successful write to the editor and explain wherein you failed and further directions will be sent you.

HISTORICAL GUILD

Members living in Philadelphia who are interested in assisting making a pictorial collection of historical places in the city and vicinity, will please send all prints to Maurice T. Fleisher, 2223 Green St., Philadelphia, Pa., and he will take charge of them and see that they are properly classified and cared for. Send with each picture a full description. Send unmounted platinum prints and number them on the back. Let the description be numbered to correspond, and typewritten on a piece of paper suitable for pasting in the book with the print.

MOSS ROSEBUDS. By MARION S. GAINES.

PHOTO ERA

The American Journal of Photography

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Change of Price Attention is called to the fact that the allotted time for securing the PHOTO ERA for the ensuing year, at the merely nominal rate of one dollar and a half, will soon expire. Those who have not already availed themselves of this liberal offer are advised to "take time by the forelock" and send in their subscriptions promptly. After January 31, the subscription price will be raised to two dollars and a half, and it will be decidedly cheap at that. We propose to publish the handsomest magazine issued in the photographic and printing world but we want all our readers to take advantage of the old subscription rate while it lasts.

The New Photo Era The famous tailor of Tooley street was outdone by an enterprising American who went over to England and opened a shop in Birmingham, recently. Here is the story, as we find it in a British exchange:

He obtained premises next door to a man who also kept a shop of the same description, but was not very pushing in his business methods, preferring to jog along in the old, conservative way.

The methods of the American, however, caused the older trader to wake up, and, with the spirit of originality strong upon him, he affixed a notice over his shop with the words, "Established Fifty Years" painted in large letters.

Next day the American replied to this with a notice over his store to the following effect: "Established Yesterday, No Old Stock."

Though not so old as some of its esteemed contemporaries, the New PHOTO ERA is seeking to be more and more useful to its readers each month by becoming the most up-to-date photographic magazine published in the United States. We have no old stock on hand, and aim to supply only new ideas,— keeping the reader thoroughly in touch with the progress of the art of photography. This is our mission. Indeed, our motto shall always be: "We aim to help." By this we mean that the reader will find in our pages each month a record of the work done by photographers all over the world. By its aid he should be able to utilize the experiences, avoid the errors, and profit by the example of others. It is sure to be a rich harvest, this aggregation of world-wide experiences, and we offer it to our readers through the New PHOTO ERA, "Established Yesterday, No Old Stock."

Protection for Photographs Representative Fitzgerald, of New York, has introduced a bill in Congress making it illegal for any person engaged in trade to use for advertising purposes the name or pictures of any living person without having first obtained his consent in writing. A maximum penalty of one year in prison and $1,000 fine is provided.

"The necessity for some such legislation has been emphasized by a recent decision of the New York Court of Appeals," said Mr. Fitzgerald, in explanation of his bill. He then cited the case of a young woman who sought to restrain the unauthorized publication of her picture as part of an advertisement, in which "the court," he said, "practically determined that if the picture were libelous, its use could be restrained, but the mere fact that the picture was a true likeness and its use unauthorized afforded no ground for redress."

Blood-thirsty Redskins Child Bayley, editor of our esteemed contemporary, *Photography*, London, recently made a flying trip to the States. He visited New York, Buffalo, and Chicago, but failed to reach Boston. Mr. Bayley admits that he saw the editor of *Camera Work*, Mr. Stieglitz, pulling proofs — while Editor Tennant, in a recent issue of *Photo Miniature*, speaks enthusiastically of a dinner given Mr. Bayley in New York.

Commenting, in *Photography*, on what he saw, Editor Bayley declares that the American type today is not English, German, Swedish, nor Latin, but the North American Indian variety seems to predominate.

It is not the first time that we have heard that there were Indians in New York, and Mr. Bayley ought to be congratulated on having escaped with his scalp whole, from such blood-thirsty redskins as Tennant and Stieglitz, and the ferocious Photo-Secessionist tribe. It was, perhaps, unfortunate that his experience should have been confined to New York Indians exclusively. We urge upon him the necessity of seeing Boston and Philadelphia before drawing his final conclusions regarding the future American type.

Color Photography With our English contemporaries this subject has been receiving considerable attention of late, though nothing absolutely new has been developed. In America, a Mr. Henry Miley of Lexington, Va., after years of hard work has patented a process for reproducing photographs in natural colors, which he is about to give to the scientific and commercial world. Although a company has been formed in New York to exploit it, no details of the process have yet been given to the public.

S. Belknap Hargreaves of Indianapolis, Ind., has discovered how to make photographs in color by a modification of the Lippmann process originally adopted by Prof. Gabriel Lippmann, of Paris, in 1891. Lippmann's method was to expose a sensitive film in contact with a metallic mirror. The effect of the latter, which was formed by running a layer of mercury in behind the film, was to reflect back the incident light waves stationary. The stationary vibrations, falling in the interior of the sensitive film, impressed their own structure upon it, and by virtue of the structure thus imparted, the brown deposit of silver appeared imbued with the same colors as were possessed by the image in the camera. This was actual, scientific, color photography, but it was of no practical or commercial value, for the reason that it resisted all attempts to obtain prints from the negatives.

Mr. Hargreaves claims to have so far improved upon this process that he produces prints in natural colors from the negative.

The latest claimant, however, is Prof. A. B. Leckenby, U. S. agrostologist at Unon, Oregon. As far as it is now known, the new method is the same as the old system of photography up to the act of making the print. The difference lies in the emulsion on the sensitive paper. The slight differences in the shades on the negative plate are just enough to act in different ways on the paper during printing and produce the several colors, and after the toning and fixing operations, the picture comes out resplendent in colors instead of all the same slate or sepia tone.

Up to the present time only one fault has been found with the pictures. They are not all the same shade. A red rose may show pink at one time, and with the next tone and fixing a dark crimson. In either case the color will still be red, but the shades will be decidedly different. Even this objection, which is not in itself very serious, Dr. Leckenby thinks will be remedied, and he has, he says, worked out a method which will have the effect of bringing the various prints to a more even tone. It is generally understood that Professor Leckenby will not patent his discovery or try to make money from it, but he will give it to the world. He is, however, taking steps to procure the necessary papers to secure for himself the honor of having discovered the new method and to prevent any one else from using it as a money making scheme.

Government Work Practically every executive department in Washington has its official photographer, says the New York *Tribune*, whose work consists in the preparation of illustrations for government publications, the recording of phases of botanical and zoological life, the physical characteristics of various regions, etc. Fortifications, ordnance, uniforms, and so on are faithfully reproduced by the photographer of the war department, and the negatives and prints are filed for future reference. Vessels under construction or being repaired, marine apparatus, armament, uniforms, and coast topography are similarly reproduced by the photographer of the navy department. A variety of subjects, ranging from the artificial culture of the tuberculosis bacillus to the latest improvement in scientifically bred corn, from the surra-infected horse of the Philippines to the latest forest improvement in the Adirondacks, are similarly recorded by the photographers employed by the department of agriculture. Several photographers employed by the department of the interior devote themselves to the work of the geological survey, the bureau of Indian affairs, the patent offices, etc.

The most practical, and in some respects the most important, work in this line is performed, however, by the official photographer of the treasury department, whose negatives and prints have proved of the utmost value to the secret service division, the supervising architect, the bureau of customs, the commissioner of immigration, and numerous other branches of Uncle Sam's great counting-house.

Historical Records A new and important development is the application of photography to the perpetuation of the government records. It consists in the preparation of photographs of the tons of state papers which now encumber the government files. In many instances ten or a dozen of these papers can be photographed on a single negative. A comprehensive index will be kept and a print of the required document, of any desired size, can be made at any time. In this way negatives which will occupy cubic inches can be made of papers which occupy cubic yards, and only in the rarest instances will it be necessary to refer to the originals. On the same principle the army and navy rolls can be reproduced. At present these rolls are constantly wearing out and require endless copying, with the possibility of copyists' mistakes, etc. A photograph made the same size would obviate all this. No errors would be possible, and new prints would be available whenever they were required.